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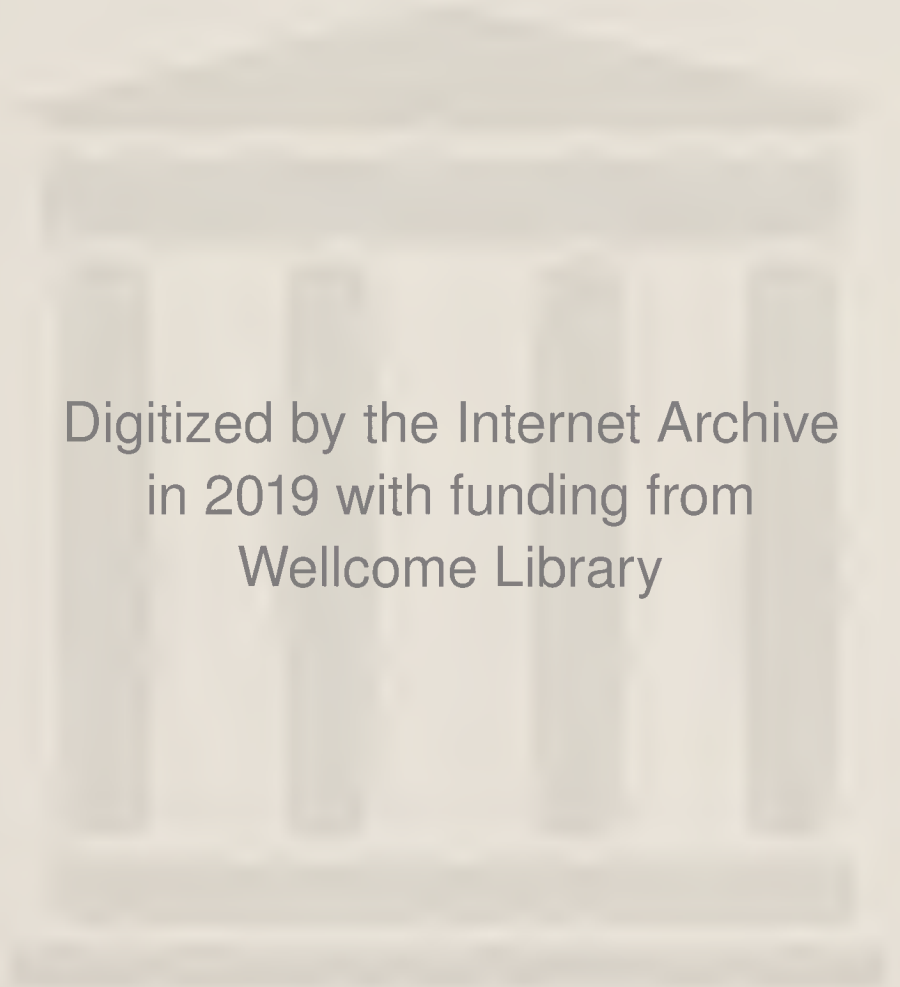
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THE

LONDON

MEDICAL AND SURGICAL

JOURNAL;

EXHIBITING

A VIEW OF THE IMPROVEMENTS AND DISCOVERIES

IN THE

VARIOUS BRANCHES OF MEDICAL SCIENCE.

EDITED BY

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AND

AN ASSOCIATION OF PHYSICIANS AND SURGEONS.

Quærere verum.—HORACE.

VOL. I.—1836.

LONDON:

PUBLISHED BY G. HENDERSON, 2, OLD BAILEY,

LUDGATE HILL.

1836.

54800

LONDON:
J. HENDERSON, PRINTER, WHITEFRIARS.

THE

London Medical and Surgical Journal.

No. I. SATURDAY, JANUARY 30. Vol. I.—(1836).

ESSAY

UPON SOME POINTS OF THE

HISTORY OF CATARACT;

Thesis presented to, and sustained before, the Academy of Medicine of Paris.

By THEODORE MAUNOIR,
OF GENEVA,
Doctor of Surgery; Member of the Medical Observation Society.

TRANSLATED
By ALEXANDER THOMSON, M.B.
Of St. John's College, Cambridge.

"Observer la nature, rassembler beaucoup de faits pendre leur ensemble pour principes ..... Qui sommes nous pour nous detourner de cette voie."—Bichat, *Œuvres Chirurg. de Desault.*

5.—I pass on to what concerns the operation, its difficulties, its accidents, and its consequences.

Operation.—Extraction is the method preferred and employed almost constantly by Professor Roux. I have only seen the needle made use of in seven patients, in cases in which it would have been impossible, or very difficult, to attack the cornea without danger; for instance, on account of the depth of the globe of the eye, of its smallness, of its continual mobility, &c. &c. It is conceivable that, with similar materials, it must not be even thought of entering on the question of knowing whether there be one method of operating preferable to another, and which is entitled to that prerogative. It is not assuredly that this question would be idle, or that it has been sufficiently enlightened by the contradictory assertions of the authors; but it is, I believe, one of extreme difficulty, perhaps even insurmountable difficulty, if at least it be desired to compare the value of the methods themselves, employed in analogous circumstances, and with all the perfection of which they are susceptible, rather than the talent of the operators; indeed, the manner of executing the operation is not here a matter of small importance; and from the fact that such surgeon obtains more numerous successes by depressing, or by breaking up the cataract, than such another, or himself by practising the extraction, it by no means follows, as is conceivable, that the difference necessarily depends upon the superiority of the first method over the second. What would be necessary for resolving this question? To know, among all the surgeons, the one who obtains the most numerous and the most complete successes by means of extraction, and to compare his results with those furnished by depression practised in the most successful manner. How many difficulties!

It is only, as I have already said, in the spring and autumn that subjects affected with cataract are admitted into, and operated on, at la Charité.

From the moment of their entrance they are, as the only preparation, submitted to the use of whey and mustard foot-baths—it is very rare that recourse is had to bloodletting. On the morning even of the operation a blister is applied to the nape of their neck, and is kept suppurating until their exit. Never, or scarcely ever, does M. Roux make use of any means calculated to obtain dilatation of the pupil.

The operation is always performed in the amphitheatre, and if there be need of a double operation, it is performed on the two eyes the same day. The patient is seated in face of the window, upon a chair a little lower than that of the operator; one of his eyes is maintained shut by means of a compress; his head is supported against the breast of another, who raises with the index finger the free edge of the upper eyelid, so that the pulp of that finger touches, and even compresses slightly the globe of the eye towards its internal part. The operator, on his part, turns down the lower eyelid; he likewise places the pulp of the index against the internal part of the globe of the eye, of which the movements inwards are thus hindered, at least in part; holding in the other hand the triangular knife of Richter, he directs the point at a rather large angle upon the edge of the transparent cornea, and at a little distance from its union with the selerotic. It is always considerably above the external extremity of the trans-

verse diameter of the eye that Professor Roux practises this puncture, but the height varies; when the eye is favourably disposed for that, it is such that the incision is as much external as inferior, so that in this respect the precept of Wenzel is exactly followed.

The cornea once traversed, the blade of the knife is pushed parallel to the iris, until the point comes out at a point almost diametrically opposite to that at which it has entered. However, this second puncture is almost always so situated, that when the section is completed it comprises a little more than the half of the circumference of the cornea; to say that it is 7-12ths, rather than 9-16ths, is more than I am capable of doing, and as the difference between these two fractions is but 1-48th, there is, I believe, great chance of the precepts given on this subject by the authors being never exactly followed. However, as soon as the point of the knife has come out towards the internal angle of the eye, the fingers of the assistant, and those of the operator, cease to make the slightest pressure upon this organ, and the section is completed by continuing to push the lamina parallel to the iris, and in the same direction, but without pressing directly from above downwards *. This manner of causing the knife to act for the completion of the incision, is so important, if it be desired to obtain a very regular flap, that Professor Roux constantly employs it, at the risk of pricking either the skin or the conjunctiva of the inner angle of the eyelids, an accident that occurs rather frequently, and to which I shall farther on recur.

This first period of the operation being completed, the eye is allowed to repose for some minutes; then the aid raises anew the upper eyelid, with the precaution of in no way compressing the ball of the eye; the operator, armed with a cystotome having a blunt and convex back, a concave edge, raises the flap of the cornea with the back of the instrument, cautiously causes the point of it to penetrate into the posterior chamber, and taking care not to plunge it deeply enough to reach the cells of the vitreous body, he pierces, at a single stroke, the double membrane covering the anterior face of the crystalline, by practising thereon an incision, representing in miniature that of the cornea; then he withdraws the instrument, applies horizontally the small cataract spoon, placed at the other extremity of the handle, upon the skin of the upper eyelid, very near the eyelashes, and slowly opens the eye, compressing it slightly towards its upper part. This manœuvre impresses upon the crystalline a demi-movement of half rotation, which carries backwards its superior part, and forwards its inferior part; the latter is engaged in the aperture of the crystalloid, traverses the pupil, dragging with it sometimes a little forwards the inferior edge of the iris, raises up the flap of the cornea, and slowly traverses the incision of that membrane; in proportion as the cataract advances, the surgeon diminishes the pressure he exercises upon the globe of the eye, so that at the moment in which the transverse diameter of the lens is in relation with the two angles of the incision of the cornea, he confines himself almost to sustaining the eyelid, and allows this species of labour to terminate spontaneously. All these minute precautions, that particularly of terminating the different periods of the operation with slowness—among others, the section of the cornea, and the extraction of the crystalline, are of major importance, if it be desired to avoid a serious accident, the issue of a more or less considerable portion of the vitreous humour.

Immediately after the operation, the eyes are covered with a large compress of white linen, then with a black silk bandage, the whole secured by pins behind the cap. This apparatus is not touched until the fifth day, but from that time forwards the patients bathe the eyes several times a day with cold or tepid water, whitened by some drops of acetate of lead. The first day they are subjected to absolute abstinence; from the second to the fifth they are allowed some beef-tea (bouillon), then some beef-tea with bread, and finally the half or three-fourths of the usual allowance of nourishment.

As at la Charité there is no ward destined to diseases of the eyes; the beds of the persons operated on are obliged to be surrounded on all hands with a thick sheet, in order to preserve them from the day light. It can scarcely be believed how much, when the weather is hot, that species of imprisonment, which hinders all circulation of air, is fatiguing for the patients; it is not impossible that that circumstance has something to do with the causes that lead to the failure of the operation. I must state, however, that in order to regain their beds, the women are obliged to ascend a stair, which communicates with the open air by a door always open.

Difficulties and Accidents of the Operation.—But the operation does not always terminate so simply as I have indicated; some *difficulties* occur, from time to time, to prolong its duration—some *accidents* complicate it. I am going to speak of both of them.

1st. The mobility of the globe of the eye, the little power that certain patients appear to have upon the muscles of that organ, sometimes render the puncture of the cornea rather difficult: several do not know how to look at the side pointed out to them, or if

* An English author, Mr. Wathen, gives the advice—rather bad, I think—of completing the section of the cornea by pressing upon the knife from above downwards.

they direct the eye in that direction it is only for an instant—it is altogether impossible for them to retain it immovable for some seconds. This first difficulty is overcome; the point of the knife has finally been able to traverse the cornea; frequently, then, the eye that was the most movable ceases to be moved, and the section is completed with the greatest ease. But it is not always so, and some patients, immediately the point of the knife has penetrated, turn the globe of the eye forcibly inwards, so that the greatest address is necessary for following this movement, and completing the section without ceasing to hold the instrument in a suitable direction.

2nd. Another difficulty presents itself much more frequently, and sometimes prolongs the duration of the operation: it is that which depends upon the incision of the crystalloid. The immobility of the eye is here more necessary still than for the section of the cornea, for there is question of causing to pass through the pupil an instrument at once pricking and cutting, and of proceeding to open the crystalloid without wounding the iris or the vitreous body; or during all this period there is absolutely nothing to maintain the eye, since the least pressure might prove fatal; so must it sometimes be returned to for five or six times before obtaining of the patient two seconds of immobility in a position such that the pupil be not entirely hid beneath the eyelids.

It is difficult to believe to what point such difficulties are calculated to embarrass a surgeon who may not have most extensive practice in these delicate operations; but, after all, these are but difficulties, and, if they be happily surmounted, they can in no way influence the result of the operation; besides, it will be possible almost always to avoid them by devoting oneself some days previously to habituate the eye to remain immovable.

As to the accidents, the following are those which I have seen occur.

1st. Once only the section of the cornea has not been large enough to permit of the passage of the crystalline; it was necessary to enlarge it with the scissors.

2nd. It has occurred in some cases, that the operation has not been completed: sometimes because, after the introduction of the knife into the eye, an abrupt movement of the patient has forced it out; sometimes, on the contrary, because an analogous circumstance has caused the point of the instrument to penetrate through the iris, or the pupil, into the posterior chamber, and because, in withdrawing it, the evacuation of the aqueous humour has arrived to oppose an obstacle to the completion of the operation; sometimes, finally, after the section of the cornea, and the opening of the crystalloid, the pressure destined to cause the exit of the crystalline has determined the issue of a more or less considerable quantity of the vitreous body, and the cataract has remained in place.

3rd. Frequently enough the skin covering the lachrymal sac, or else the conjunctiva of the great angle of the eye, is punctured at the moment of the completion of the section of the cornea.

4th. The iris has been wounded a certain number of times, its pupillary edge has been cut on the entrance of the knife, or at the moment of its exit from the eye; sometimes, also, that membrane comes to apply itself against the blade of the instrument, and to overlap the cutting edge; if then it cannot be arrived at, exciting its contraction by slight frictions upon the cornea, and if the knife be continued to be pushed, it necessarily happens that it is cut at its inferior part.

5th. Finally, whether the pressure of the globe of the eye have been too great, or too long a time continued, or the cells of the vitreous body have been touched during the incision of the crystalloid, or the muscles have contracted spasmodically after that of the cornea, still a portion of the vitreous humour is sometimes seen to escape from the eye, before, but particularly after the crystalline.

The influence of these different accidents on the definitive result of the operation will be examined in treating of the prognosis.

6. *Consequences of the Operation.*—Besides the accidents that occur during the operation, there are others which supervene at a later period, and too frequently destroy all hope of success. Some are local, have an evident connexion with the organ affected; others must be considered as interloping affections, that are developed during the time employed in the complete cicatrization of the wound of the cornea, and do not appear to have necessary relations with the operation.

Let us first see whether the patients, in whom the operation has succeeded*, do not experience any kind of accidents during

* I have considered as having succeeded, not only the operations after which the pupil has been perfectly distinct, regular, moveable, the cornea perfectly transparent throughout its whole extent, and the faculty of vision so well re-established that the patients can distinguish the smallest objects; but also those, after which the sight, without being so perfect, has been good enough to be of great utility to the patients, to permit them to guide themselves easily, and to recognize well the usual objects of which they are obliged to make use. In these cases, the pupil may be more or less irregular, the iris may adhere by some points to the cicatrix of the cornea, or even form a slight hernia through the lips of the

the time employed in the cicatrization of the wound; if they experience any, what are they? and within what limits can they be endured without danger.

1st. *Cases of Success.*—Among the patients who have undergone the extraction on both sides, there are 25 in whom this double operation has succeeded; among those who have been operated on on one side only, 26 have been so successfully*.

Or, in these 51 patients, there are but 5 who, at any period after the operation, have experienced pain either in the eyes, or in the head. In all the others it has been otherwise. They may be classed thus:—

1st. Some have felt, either only during some hours, or more frequently during the first 12, 24, and sometimes 36 hours that have followed the operation, a sensation of burning, of prickings, of more or less vivid pains in the eyes, without cephalalgia; when these pains have been strong at the commencement, they have diminished rather speedily, and after the first, or the second day at farthest, they have ceased, without return. It has been thus in about the fourth part of the persons operated on (13 patients).

2nd. Six others have, during the same time, felt the same pains, but joined to a more or less vivid cephalalgia, generally limited to the forehead, on the side of the eye operated on; sometimes in the temple. That has occurred in the 1-3rd part of the persons operated on (18 patients).

3rd. Others again, after having experienced, during the same time nearly, the accidents of which I have just spoken, have ceased to suffer during two, four, twenty days even; then the pains have re-appeared either in the head or in the eyes, with a variable intensity, to last one or several days, and without producing a troublesome effect upon the state of the sight (11 patients).

4th. A small number, finally, has preserved, during several days after the operation, pains in the eyes, with or without cephalagia, but these pains have been generally not very intense.

Some other accidents still have occurred, but more rarely: I would speak of pains in the teeth. These pains, which are met with sometimes after the operation of cataract by extraction, are felt in the alveola of the teeth of the upper jaw, on the side of the eye operated on: they are generally a bad sign, and do not appear to depend necessarily upon the existence of carious teeth; they are met with when the teeth are perfectly healthy, and in cases, also, in which there no longer exist any in the parts to which patients refer the pain; however, their coincidence, moreover, rather frequent with pains in the forehead, in the temple, sometimes in the cheek bone, and even in the lobe of the nose on the side of the affected eye, points out sufficiently that they follow the branches of the fifth pair. The issue of the operation is not, however, necessarily bad when these pains exist, for they have appeared in five of the fifty-one operated on, of whom I am actually speaking. The most remarkable case of this kind is relative to a woman of 53 years of age, who at 50 years of age had already been operated on for the left eye without any success. In her, the extraction of the cataract on the right side was very laborious; the crystalloid difficult to be opened on account of the continual movements of the globe of the eye, and the iris probably wounded, for a little blood flowed out from the interior of the eye. The issue of the crystalline was followed by that of a quantity of the vitreous body equivalent in bulk to a large pea. During the first 24 hours, there was a rather vivid pain in the eyebrow, in the cheek, and in the upper teeth of the right side, but neither cephalalgia, nor pain in the eye itself. During the following 24 hours scarcely any pain. The morning of the third day, an erysipelas was declared, without precur-

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wound; the edges of the incision may be opaque over a small extent, &c. In all these cases, I repeat it, provided there remains a space sufficiently great, and very clear, for allowing the luminous rays to penetrate to the bottom of the eye, the faculty of seeing may be exercised in a very useful manner; these are the cases of *success*.

The cases of *demi-success* are those in which the sight is re-established in a too imperfect manner to enable the patients to guide themselves with ease; those, moreover, few in number, in which they have quitted the hospital before the cure was assured. Finally, the cases of *non-success* are those in which these feeble advantages have not even been obtained.

* Among the cases of double success, is reckoned a man who has been spoken of at page 45, fifth case; although he did not recover the sight, the two corneæ and the two pupils were perfectly clean, nothing was opposed to the passage of the light. It is the same with a woman who died on the 11th day, of a disease altogether extraneous to the operation.

Among the cases of success on a single side, is classed a man who died on the 5th day, and of whom it will be spoken hereafter; there was no trace of inflammation of the eye. A second patient, who was evidently amaurotic; at his exit from the hospital it could not be suspected that he had undergone an operation, so clean was the cornea, the pupil black and regular; but the sight did not at all exist. Finally, a third, of whom mention has been made at page 40, the *second case*.

sory symptoms, on the left cheek; the cheek, the left side of the nose are red, swollen, hot, painful on pressure, hard to the touch; the skin is dry, burning; the thirst vivid during 24 hours. On the morning of the fourth day the erysipelas has not sensibly changed; the next day, 48 hours after the commencement, it is almost entirely dissipated; there remains but a little hardness of the skin upon the wing of the nose; the right side of the face is untouched; no febrile movement. On the day of the commencement of the erysipelas a rather vivid cephalalgia, limited to the right side of the forehead, had declared itself, accompanied by very painful prickings in the eye. All that ceased at the same time with the cutaneous affection; but the pain of the eye reappeared one day afterwards, and continued alone during four or five days. After that, the patient was well enough during ten or twelve days: only her eye was very sensible to the light; then a shivering comes on: it is followed by heat and sweat; at the same time a vivid cephalalgia reappears; it is limited to the right side of the forehead, and is accompanied with very painful lancinations in the eye, in the cheek, and the right side of the nose, of which the aspect presents nothing abnormal. On the next day, the febrile movement had ceased; but up to her exit, which took place ten days later, the patient felt frequently the same pains in the eye, in the temple, in the eyebrow, in the cheek, in the nose, of the right side. During all this time, there was scarcely any redness of the conjunctiva; the cornea remained clean, the pupil was oblong, but very black. This woman distinguished a pin perfectly; the iris descended towards the cicatrix, and slightly elevated the flap of the cornea, without being prominent externally. Besides the local accidents of which I have just spoken, some patients have experienced others of a different nature.

Thus, four of them have presented symptoms relative to the digestive passages:—

1st. One of them, aged 64 years, having usually good health, after having suffered much in the eyes and in the head on the day of the operation, was attacked the same evening by abundant vomitings, after which he found himself relieved, and passed a tranquil night. Henceforth he no longer experienced the least uneasiness.

2nd. In the other three there was no, or almost no pain, during eight, ten, and twenty days. At the tenth day, one was attacked with colic pains and with diarrhœa; this state lasted 48 hours, and had no influence upon the eyes.

The second experienced on the eighth day a violent shivering, which lasted three hours, and was not followed by transpiration. After this shivering there were two vomitings, and an abundant diarrhœa (at least 20 stools during the night), without colic pains, but with a vivid thirst. The next day, the skin was natural in temperature, the pulse at 80, the tongue white, not very moist. Some rice water with gum was given. That diarrhœa continued during three days; the stools were very numerous; there was tenesmus, no scalding at the anus, no pain of the belly. I could not ascertain whether there was any blood in the matters voided. However, no febrile movements, not the least pain in the eyes, or in the head, either at that time or later. At the end of three days the diarrhœa ceased. In the third patient, the symptoms which supervened on the twentieth day were nearly the same as those I have just been describing. He was attacked with very violent dysentery; bloody stools every three quarters of an hour; much tenesmus, vivid colic pains, depression. This state lasted three or four days, and yielded to the administration of some laudamised lavements. The eyes did not experience the least accident.

In the other four patients there was a slight febrile movement without appreciable cause.

It was limited in one man and one woman to a little warmth, and some transpiration during the first three nights, without producing any effect upon the eyes.

Another woman experienced some uneasiness, had the skin hot, the pulse frequent, only on the third day after the operation. This state did not last two days; there was no pain in the eyes, only a little heaviness in the head.

In a fourth, the febrile movement did not occur until four days after the operation. She attributed it to a window opened at the side of her bed. She had some heat of the skin, some uneasiness, a vivid thirst, some cephalalgia, and some pain in the eyes, during a whole night. Two days later, the same accidents reappeared again during the night, accompanied with nausea, without vomitings; the following day the patient was well, but in the evening the same state reappeared for some hours only, and for the last time.

A man of 46 years of age was attacked seven or eight days after the operation, by an eruption of very small red points, covering the arms and the chest: it lasted four or five days without appearing to exercise the least influence upon the state of the eyes, which were already a little red, painful, and sensible to the light at its commencement. Besides, this patient went out with two hernias of the iris, having the pupils irregular, but very black, and seeing rather distinctly.

Finally, a last patient was a man of 50 years of age, who was attacked with accidents speedily fatal. The very day of the operation he felt some lancinations in the eye operated on, and a very slight pain in

the forehead. The first night was tranquil, in spite of abundant sweats; the next day no pain; tongue natural; pulse at 72. The third day in the morning this man was attacked in his bed; he had been in a state of delirium during the whole night, had even fallen upon the floor. At the next visit he had again become calm, and reasoned well; he suffered neither in the eyes nor in the head, but he complained of uneasiness, and a vivid thirst; his skin was hot, covered with sweat; the pulse at 88, full, regular; the tongue natural. In the evening the delirium recommenced; all the night the patient was speaking, made efforts to get up. The fourth day in the morning he again had his reason. The skin was hot, moist; the pulse at 100, the respiration at 40; the face pale, the tongue dry, red, chapped; the belly a little developed, soft, sensible on pressure—(a bleeding.) The following night was calm enough; the fifth day in the morning he had an expression of extreme anguish; the speech panting, no wandering; the face pale; the pulse at 120, small, soft, the skin hot; the respiration at 48. Auscultation practised only anteriorly; allowed a coarse moist; rattle mingled with snoring to be heard. There was no difference evident between the two sides on percussion. The patient expectorated some white frothy sputa, purely mucous. He died in the evening at six o'clock. I was unable to assist at the opening of the body. I was informed that the eye operated on did not present the least redness, or any alteration whatever. There was only found in the way of lesion, at least as I was informed, a rather remarkable quantity of serum in the great cavity of the arachnoid.

It is proper also to relate here the case of a woman, fifty years of age, naturally feeble and very thin, who was operated on in both eyes, and on whom I had unfortunately but few indications. This woman said that she had experienced, for about two years back, a sensation of heat continually in the neighbourhood of the stomach; she drank much, and was incessantly tormented with a desire of eating: however, neither vomitings, diarrhœa, nor cough. The very day of the operation, she felt some prickings in the eyes, and a little cephalalgia. Her night was good. The next day, the eyes were indolent, there remained but a very slight cephalalgia, the tongue was natural, the pulse at 76. During the nine following days, not the least suffering, no redness of the eyes, sight good, so as to distinguish immediately the hands of a watch. On the tenth day I caused her to be placed on her seat, in order to examine the eyes. She felt no pain, only she was a little weak, and had some trouble in seating herself. Nothing particular passed during the day—she made no complaint. The next day she was found dead in her bed. The opening of the body was made on the 29th of May, 1833, about thirty hours after death.

The two eyes presented not the least redness: the two cicatrices of the cornea were scarcely visible, the pupils perfectly black. I did not think of examining whether the vitreous body was prominent in the place of the crystalline *.

* The dura mater presented nothing particular: the great cavity of the arachnoid was humid, but without effusion: the pia mater moderately injected: there was a rather considerable sub-arachnoidal infiltration. The lateral ventricles contained about an ounce of clear serum: the central white parts, that is to say, the three-pillared vault and the septum, were very much softened, and were separated into irregular masses as soon as touched: the superficies of the optic thalami, and of the corpora striata, manifestly smaller than in the normal state: everywhere else in the encephalis nervous centres, the two substances, grey and white, had the natural hue and consistence.

The right cavities of the heart, of the ordinary magnitude, contained yellow, semi-transparent, as it were glutinous clots: the various orifices presented no contraction. The parietes of the right ventricle had half a line in thickness: those of the left from four to five lines.

The two lungs were free from adhesions, of a fawn-grey, soft, spongy, light, crepitant throughout the whole of their extent, without appearance of tubercles: the bronchi pale.

The abdomen without effusion. The stomach, rather voluminous, contained a remarkable quantity of fragments of raw fruit, and of orange-peel. The mucous membrane was mamellated in the blind sac, and along the great curvature: its tint varied from grey to pale rose-colour, and in some points to vivid rose-colour: but in every part its thickness was natural. Masses of three or four lines could be removed in the great blind sac, of six to eight along the great curvature, and on the two faces: of more than one inch long in the small curvature.

The small intestine contained mucous matter, yellow in the upper parts, stercoral and soft in the lower. Its hue on the interior was everywhere of a rosy grey, except above, where it was yellowish: a great number of venous arborisations, not very fine, existed beneath the mucus, which was very thin, and yielded by traction fragments of six lines at least: the mesenteric glands were not very apparent: the large intestine was not examined.

The liver, of a dark brown hue, containing much blood, had, however, its normal volume and consistence.

The right kidney, of two inches at least

CLINICAL LECTURE.

Delivered at the Jervis Street Hospital, Dublin.

BY DR. CORRIGAN.

Affection of the Cervical Spinal Cord, simulating Laryngitis—Aneurism of the Arch of the Aorta, simulating the same Disease.

M. DELANEY, aged 49, a porter, was admitted labouring under excessive dyspnœa, and stridulous respiration. He had cough, with tenacious sputa. His countenance was anxious; his skin cold and clammy; pulse very weak and small, beating 108; abdomen slightly tympanitic. He walked to the hospital, and at first sight the attack seemed to be acute laryngitis. On getting him into bed and examining him accurately, it was found that he had lost sensation from the epigastrium downwards. A week before admission, while carrying a bag of coals, he fell on his face, but felt no bad consequences until the day before he applied here, when he was seized with dyspnœa and stridulous respiration, for which he was bled. He had pain in the neck; and on making even slight pressure on the cervical vertebræ the stridulous breathing was increased to such a degree as to make us dread to repeat the experiment.

Treatment.—He was cupped on the spine to ℥xij; a blister applied afterwards; calomel and opium given in doses of ten grains of calomel to one grain of opium every third hour, to three doses. Next day skin hot; relief from all the symptoms. On the fourth day after admission, discharged well.

This has been in many points an interesting and instructive case. When the man presented himself among the dispensary patients, the noise of his breathing was so loud, his respiration was so stridulous, and the expression of distress in his countenance was so marked, that before the patient approached me I said to the pupils around me, "there is a case of acute laryngitis." On the man's speaking to me I was, however, struck by the singularity of the voice remaining nearly unaltered, or being not at all either hoarse or whispering in proportion to the other symptoms. He was then removed to bed, and a more detailed examination made. It was found that he had lost sensation in the skin below the epigastrium, but motion remained perfect. This symptom at once directed us to the spinal cord, and then we ascertained that the spinal column in the neck was tender, could not bear pressure, and that even very slight pressure on it aggravated the affection of the larynx to such a degree as to threaten immediate suffocation. The affection of the larynx it was now evident was spasmodic, dependent on disease of the spinal cord, and the treat-

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longer than the left, exceeded it by about a third in bulk: it preserved its ordinary form. There were perceived, by transparence through its fibrous coat, which they raised up a little, some points of a yellowish white, united by groups upon the whole surface of the organ. This coat having been removed, the surface of the kidney appeared as it were shagreened by this multitude of yellowish points, which exactly resembled in appearance miliary tubercles assembled together in a great number of small groups. The organ was divided longitudinally into two equal halves: the same aspect existed on the section, but the yellow points, which were of the magnitude of a pin's head, occupied only the cortical substance, and by no means that of the tubes. This last appeared in the normal state. On allowing some water to fall upon this section, and on pressing it slightly between the fingers, it was easy to convince oneself that these points were but small purulent collections; for the cream-like liquid constituting them flowed out completely during the employment of this means, and left a multitude of small cavities, having exactly the form and the magnitude of the yellow points. The ureter of this side presented nothing particular: the bladder contained some rather flaky urine: its mucous membrane was pale, thin: the womb was in the normal state.

This autopsy has appeared to me sufficiently interesting to be related with some details, though it appears to be connected but indifferently with the history of the cataract. The absence of very appreciable lesions in the abdomen, other than those of the kidney, would tend to lead to the belief that to this last lesion must be referred the symptoms stated by the patient to have been experienced by her for two years back in the vicinity of the stomach, and probably the extreme emaciation presented by her. It is very much to be regretted that she had not been questioned on that subject in a more precise manner. An inflammation of the cortical substance of the kidney terminating by the formation of a multitude of small purulent collections, is, I believe, an uncommon disease.

As to the proximate cause of the death, the extreme feebleness of this woman the evening before the day on which she expired, may lead to the belief that the softening of the central parts was, indeed, a pathological lesion, and not a cadaveric softening. Yet it must not be forgotten that thirty hours nearly had elapsed since the death, that the weather was hot, and that there was a little serosity in the ventricles.

ment was directed to the cervical spine. He was cupped over it, and from the cupping obtained immediate and great relief. The cupping was followed by a blister. He got calomel and opium, was enjoined rest, and in a few days was dismissed well. The influence which disease of the spinal cord may exercise upon the larynx, as in this case, we can explain by recollecting the connexion of the par vagum and laryngeal nerves with the superior cervical plexus; and the influence thus exerted is a practical point well worthy of being recollected. I can exemplify it, not alone by the case before us, but by a case from another source, and supported too by post mortem examination. I am always very desirous in explaining the nature of cases while under treatment with us, to illustrate them, if possible, and support the explanation given of them, by post mortem examination of similar cases. Our diagnosis and treatment are thus based upon the best of all supports—pathology.

The case to which I allude is related in Ollivier's work on Diseases of the Spinal Cord; and resembled ours in having set in with the most distressing symptoms referrible to the larynx and throat.

M. de La Foix, aged 21, a medical student, and epileptic from infancy, was attacked in February, 1822, with a sensation of slight soreness in his throat. After a few days he was unceasingly tormented by a sensation of choking, with nausea and desire to vomit, and he felt as if the uvula were swelled and lying down on the larynx. Swallowing was difficult, and respiration was stridulous (sifflante). He had also a constant and acute pain in the inferior and posterior portion of the head; no cerebral disturbance. At the same time numbness came on in the left hand and arm, and soon after in the right, and the sensation of suffocation in the throat continued unrelieved. For the full details of the case, I must refer you to the second volume of Ollivier's work. It is sufficient for our purpose here to say, that the difficulty of respiration, and of swallowing, the sensation of a foreign body over the larynx, producing suffocation, continued, and were aggravated day by day, until the eighth day from the first invasion of the symptom, when he died.

Autopsy.—All the meningeal veins (particularly those of the cervical portion) of the spinal cord, were densely injected with dark fluid blood, and into the cellular tissue which connects the posterior surface of the dura mater and the vertebræ in the cervical portion of the spinal column, was effused black and slightly coagulated blood, for an extent of about two inches. This effusion corresponded to the bulbing of the spinal cord, which gives origin to the brachial plexus. The spinal cord itself in this situation was remarkably softened, and the ramollissement was principally in the grey portion, which was of a rosy hue, and pulpy. This change also occupied about two inches, and the pia mater corresponding was remarkably injected. The trachea and larynx, the pharynx, uvula, and tonsils, were all sound. There was chronic disease of the membranes of the brain and spinal cord, accounting for the epilepsy, under which the patient had laboured from childhood; but those we need not note here.

These two cases, the one just related from Ollivier, and the one under our care, are very instructive when taken together. Both set in with most distressing symptoms referred to the larynx and throat; and in our own case so strongly similar to laryngitis was the attack, that our patient was bled the evening before admission, for supposed laryngitis, was sent in to us a patient labouring under that disease, and a careful examination alone prevented our falling here into the same mistake. In Ollivier's case, death took place in eight days. In ours we happened to be more fortunate. We have, in these two cases, instruction combined in the most useful form. We have two cases with similar symptoms. On the one hand, death revealing to us the cause of the symptoms; on the other hand, knowledge thus obtained has been made available to save life and restore health. There is yet another point in those cases, to which I wish to draw your attention, viz., the suddenness with which the very urgent symptoms set in, very strongly marked in our case, and less strongly in Ollivier's case. In our case, the injury which produced the attack had occurred a week before, and no evil consequence had supervened until the day before admission, when our patient was rather suddenly attacked with dyspnœa, &c. In Ollivier's case, the symptoms for several days were so slight, that they obtained little attention, when suddenly they rose to an alarming pitch. The same is often observed in injuries about the head, which are followed by no bad consequences for several days, when often suddenly symptoms of most severe brain disease set in, and terminate life within a very short time. In such instances the diseased action goes on latently, without any urgent symptom or functional disturbance for some time. The nervous centres appear capable of bearing, without injury to their functions, vascular derangement to a certain point; but once that point is passed, ever so little, their functions are at once suddenly struck down or perverted. The same law is observed not alone in idiopathic diseased action of the brain and spinal column, but even in the action of remedies, or poison on the nervous system. Strychnine may be given with impunity to a certain point; pass that point ever so little, and even with a small dose, and the most violent convulsive actions will set in. The same has fre-

quently been observed in the administration of hydrocyanic acid. A certain dose has been given without any perceptible effect; and increased ever so little, almost poisoning has followed. In morbid growths pressing on the brain, in congestions of it, threatening to terminate in ramollissement, the symptoms for days, or for years perhaps, are not urgent; something occurs from mental emotion, or physiological excitement, to increase, and perhaps but slightly, the irritation; the point of tolerance is passed, and at once, as in the case under our own observation, the danger becomes imminent. The effects that are seen in such instances are generally explained on the supposition that the poison has been accumulating in the system, until the last dose, added to the quantity previously given, makes a sum beyond what the system can bear. In some cases, however, the poison, as Prussic acid, is one that we can scarcely suppose to be thus retained and accumulated in the system; and such a supposition will not at all explain those cases where urgent symptoms of nervous disturbance suddenly set in, and in cases where poison had not been administered, but which may, I think, be accounted for on the explanation I have offered. The explanation thus hastily glanced at, is intended, however, to apply only to the action of remedies or poisons, such as strychnine or Prussic acid, which act directly on the nervous system. The knowledge of this law should put us on our guard, make us more watchful, and urge us to be, as it were, beforehand with treatment.

There is yet another affection of the larynx which may have its cause in irritation of the cervical spinal cord, and which I cannot introduce more appropriately to your notice than on this occasion. Infants are liable to a spasmodic affection of the larynx, closely resembling croup, while the spasm is present; the respiration is stridulous, the dyspnœa extreme, and the face congested, as in croup; but it differs from inflammatory croup in this, that when the attack passes off (and it seldom lasts intensely for more than a few minutes), the voice becomes natural, and the stridulous respiration totally ceases. To the spasmodic affection of the larynx, spasms of the extremities are soon superadded, and in one of these convulsive attacks the infant is at last carried off. This spasmodic affection of the larynx, and of the upper extremities, which are more particularly affected by the convulsions, sometimes arises from irritation of the cervical spinal cord, and this irritation perhaps again arising from injury or rough usage of the delicate cervical spine of the infant, as yet unprotected by voluntary muscular support. To treat it with success, it is requisite to keep in mind this among the many causes from which it may arise. One of the most remarkable cases illustrating this cause of spasmodic affection of the larynx, is given in the Edin. Med. and Surg. Journ. for January, 1833.

A child, aged four months, and previously healthy, was attacked with more frequent fits of crying than usual, particularly at night. At the expiration of a week, with the fits of crying there was an evident sense of suffocation for a moment, but as soon as the child cried freely this affection disappeared. At the end of two months respiration was now not only further impeded for six or eight seconds, but attended with a squeaking or stridulous noise, which resembled sometimes the crowing of a cock, and which always terminated by crying. For several weeks little alteration was apparent, till at length a new symptom supervened, in the form of a convulsive affection of the hands: the thumb was drawn into the palm of the hand, whilst the fingers were stiff and extended, or rather reflected, or thrown somewhat backwards. Convulsions of a general character soon followed, which occurred for a month once a week, afterwards came once a day, and soon after twice a day for three months. These (the general convulsions) were preceded by the above symptoms, which terminated by a strong expiration and crying for a few moments, but instantly after the child stared as if frightened at something; the pupils became dilated, and in a few moments the eyeballs became somewhat distorted and fixed, the head and shoulders thrown back, the face purplish or blue, and the whole body stiff, and on the stretch, and respiration suspended, but in a short time the spasm abated; the face became pale, there was moaning for a while, and afterwards sleep. During the whole of this time emetics, calomel, antispasmodics, &c., were given, with little or no good effect. The circumstance of the child not using his legs as much as was expected, at length led to an examination of the spine, and on pressing the third or fourth dorsal vertebræ there was always cringing and crying. There was neither deformity nor discoloration of the skin; four leeches were applied. This acted like a charm: no return, except a slight one, a few hours after the application of the leeches. In two days the leeches were repeated. The child has passed through teething, and is now eighteen months old, without any return. The importance of early ascertaining the origin of spasmodic diseases in children, which may have their cause in irritation of the spinal cord, can scarcely be overrated, when we recollect that spasmodic affections, at first trifling, may terminate in confirmed epilepsy, and that in many cases of confirmed epilepsy, the only morbid changes observable after death are ossifications, or cartilaginous or tuberculous depositions in the cord or its membranes, and

the origin of which was, in the first instance, only irritation.

On the subject of affections which may simulate laryngitis, I shall conclude by mentioning another instance in which its symptoms may be closely imitated. The instance occurred here about twelve months since. A man was admitted with extremely laborious respiration: the larynx worked up and down the throat, the countenance was expressive of distress, the lips slightly bluish, the respiration was loudly sonorous, and laryngeal, and mixed with mucous rattle, audible at a distance from the bedside; his pulse was very quick, and he referred all his sufferings to the neck. The history of the case was, that he had been seized with the present symptoms after exposure to cold ten or twelve days before, and for several days previous to admission he was unable to lie down. Here were most of the symptoms of acute laryngitis. The history of the attack, the patient's referring his sensation of dyspnœa and choking to the region of the larynx and trachea, the piston-like motion of the larynx itself, the sonorous and mucous rattle in the larynx and trachea, countenance, and pulse, all were characteristic of acute laryngitis; but when the man spoke there was wanting the proportionate change of voice which should accompany the other symptoms, if their seat were in the larynx. The voice was altered, it was slightly hoarse, but instead of being very much changed, as it is even in slight affections of the larynx, it was scarcely altered, while other symptoms of laryngeal and tracheal obstructions were so urgent as to seem to demand the operation of tracheotomy. On examining the chest a curious circumstance was noticed. While sonorous and mucous rattle in the trachea were loudly audible by the naked ear at a considerable distance from the patient, the respiratory murmur, soft, and nearly natural, was alone heard through the stethoscope, or with the ear applied close to the chest, with the exception of the top of the sternum, where the same loud sonorous wheezing heard at a distance with the naked ear was also heard from within the trachea through the stethoscope. We had thus the seat of disease in this case narrowed; above, the little alteration of the voice was an indication that the larynx was little altered; below, the respiratory murmur was unaltered, telling us that the cause of distress was not in the lungs. The disease was then somewhere in the trunk of the trachea, below the larynx, and above the bifurcation of the bronchiæ. Many most careful examinations were made to discover the existence of aneurism, or of any tumour in that situation, but in vain. The pulse was equal, there was no morbid sound within the chest, no increased pulsation, no dulness on percussion, nothing, in short, to indicate the nature of the obstruction. That such existed there could be no doubt, but whether within or without the trachea, we could not determine. The man was occasionally relieved by small bleedings, but most by inhalation of steam: at last his legs began to swell, chronic catarrh came on, involving, after some time, both lungs. He became dropsical, and died about two months after admission into hospital. On examination, the larynx and lungs were sound, and arising from the arch of the aorta immediately at the root of the arteria innominata, but not at all engaging it, was an aneurism, about the size of a very small orange, and as firm to the feeling as cartilage; it was densely bound down upon the trachea in the posterior mediastinum by a very thick layer of dense cellular tissue*. It was completely and densely filled with fibrine, totally destitute of colouring matter, and so firm that the aneurism, when first exposed, looked and felt like a cartilaginous tumour. This explained all the symptoms. By its mechanical pressure, and by its irritation on the trachea, it had produced the sensation of distress referred to the throat, and the sonorous and mucous wheezing heard in the trachea, and so like that of laryngitis; while its being bound down deep against the trachea, accounted for its not causing any dullness of sound on percussion; its solidity explained the absence of any morbid pulsatory sound, and its only engaging the arch of the aorta accounted for its not affecting the pulse of either arm. The heart was perfectly sound, and never gave any indication of disease during life. I remember much blame and outcry having been raised a few years back against the house surgeon of a large hospital, who, in a similar case, when the patient was brought into hospital at night, with suffocation imminent, performed the operation of tracheotomy, having mistaken the case for laryngitis. If those who raised the outcry had been in his place, they would perhaps have been the first to commit the same error, or, if they had been aware of the exceeding close similarity which such a case as I have described bears in its symptoms to laryngitis, they would perhaps only wonder that the error could be avoided.

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* The preparation was exhibited. The aneurism was of the false kind, the opening into it consisted of a circular hole through the interior and middle coats; the tunic of the aneurism consisted of dense cellular tissue, and there was no space in it for fluid blood. All the remainder of the aorta, the larger trunk arising from it, and the heart, were perfectly sound.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE I.

Anthropogeny—Extent and Arrangement of the Subject.

The science of midwifery, or, as it is now termed, obstetricy, comprises all medical knowledge relative to the reproduction and conservation of the human species. There is not a function in the whole domain of physiology so interesting to the adult portion of mankind, or one that has been more zealously investigated by ancients and moderns, whether theologians, philosophers, or physicians. The love of offspring is inherent in almost all healthful individuals at the adult age, though some few may not possess it, or attempt to control it, or to extinguish it.

Anthropogeny, or the power of generation, in strict physiological language, exists from the period of puberty to old age: it comprises a multitude of moral and physical inquiries—as the physiology of puberty; the age proper for marriage; early, premature, ill-sorted, and late marriages; the physiology and pathology of the generative organs; the hygienic and morbid effects of the use and abuse of these organs, on fecundity, health, and longevity; the moral and physical qualifications and disqualifications for reproduction; the influence of monogamy and polygamy on morals and population; legal and clandestine marriages; seduction, adultery, rape, bastardy, abortion; and the influence of age, habit, constitution, temperament, season, climate, plenty, famine, public rejoicings, war, pestilence, &c. on fecundity, nativity, and mortality. Such are only a few of the principal medical, political, and social topics relative to the function of generation. Medical practitioners are consulted on all these topics, both by the legislature and every class of society, in civilized countries. Anthropogeny, or the reproduction of the human species, is a universal theme of conversation, under many different popular terms, with all those capable of having offspring. Legislators designate it "the population question," about which so much has been said of late years; and the different grades of society designate it "family." Lawyers and divines also discuss numerous questions relating to it. The most renowned theologians, philosophers, physiologists, legislators, and jurisconsults, as well as all classes of society in ancient and modern times, have occupied their minds with the study of the various phenomena and anomalies of reproduction, and the numerous questions connected with it. Their studies have, however, signally failed, in determining the mode in which life is transmitted by parents to their offspring; in fact, the innumerable investigations of ages have been insufficient to explain this mysterious phenomenon. The medical physiologists trace anthropogeny from the instant of its accomplishment; though they, too, have failed to explain the origin of vitality in the embryo; but they have traced its development from its commencement, and means of its conservation until it becomes an independent being, and a member of the human family. They have described the physical changes in the human female, from a few minutes after conception until the period of parturition; and those of the latter state, from the moment of its completion until the

organs concerned in it are restored to their ordinary condition before impregnation, or very nearly so.

The term midwifery, or obstetricy, is inexact, as its literal meaning is the aid afforded during parturition. The term anthropogeny ought to replace both, and henceforth exclude them from medical phraseology. Tocology, or natural parturition, forms an important section in scientific nomenclature, as regards the mother, and embryology, as regards the infant.

Pædophysiology, and pædonosology comprehend physical education, intra-uterine and extra-uterine diseases of infants from birth to puberty*.

Obstetric terms require improvement, as obstetricy is scarcely yet a recognised section of surgery. I may here observe, that I was the first to introduce into this country the term obstetricy (obstetricie†), which was proposed by Professor Velpeau in 1823, and since adopted by Dr. Blundell‡; and likewise to propose the term obstetrician for the male or female practitioner, which was also adopted by Dr. Blundell, and is now in general use. In the first edition of my "Manual of Midwifery," 1828, I made the following remarks :—

"It may be necessary to offer an apology for my proposal of the term obstetrician. The profession have been long puzzled for some term, expressive of the male practitioner of midwifery. In the year 1736, Mr. Douglas published an account of the state of midwifery in London. He inveighed, in no gentle language, against the word midwife, 'as widows and maids might act in that capacity, and were not wives;' which induced Maubray and Chapman to use the term 'women midwives.' Critics objected to this term; and alleged, 'that girls might put lying-in-women to bed;' and, 'who ever heard of girl midwives?' The word man-midwife was quite barbarous and shocking, because, 'how can a man be a wife, except he be a hermaphrodite?' 'May they not as properly say, man monkey, man goose, and man ass? I therefore fixed,' says Douglas, 'on the terms, *midmen* and *midwomen*!' This author praised the French word accoucheur. The talented and erudite editor of the New London Encyclopædia, gives an elaborate explanation of the word midwife, and asserts that in many languages, it means wise woman. Dr. Davis, of the London University, has proposed the term midwifer, for the word accoucheur; but this dissonant substitute has not been adopted.

"The ancient Roman writers used the word obstetricium for midwifery, and obstetrix for midwife, and the moderns employ the words ars obstetricia—obstetric art—for midwifery.

"Pliny, Terence, and Horace, had no occasion to name the male obstetrician, who did not exist in their times; but had medical practitioners attended obstetric cases, it is probable we might have the words obstetricius, or obstetricus; and the literal translation would be obstetrician§. We have no hesitation in using the words, geometrician, electrician, mathematician, &c. and why not the former. Is there not something anomalous, absurd, and highly ridiculous, in conjoining the English word physician, and the French word accoucheur? This is still done, and even the latter is introduced as

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* All the varied phenomena of generation, ovology, embryology, the changes in the woman caused by pregnancy, parturition, the physical and medical management of infants from birth to puberty, are now included in that branch of medical science termed midwifery, or obstetricy.

† Manual of Midwifery, 1831.

‡ Principles and Practice of Obstetricy. By James Blundell, M.D., &c. &c. 1834. Edited by T. Castle, M.D.

§ Paulus Æginetus, the last Greek medical author of the ancients, who flourished in the fourth century, according to some, and in the seventh according to other writers, was designated "vir obstetrix, vir obstetricus," in English, obstetrician.

an English word, in some of our best dictionaries. It appears an oversight on the part of our modern lexicographers, to have omitted the feminine, and excluded the word *accoucheuse*. Some philologist has taken the trouble to enumerate the words in Dr. Johnson's Dictionary, and states that the number is 40,301 ; and to these many more are now added ; and yet, with a language so copious and perfect as ours, shall we continue to expose ourselves to the just sneers of our neighbours, by adopting their language as our own ? The idea is monstrously preposterous. We might, as properly, employ the words Physician Medicinæ-Doctor. On the other hand, either physician or surgeon may add, ' and Obstetrician,' after his title, with strict propriety."—Preface, page vii.

Some individual has disputed my claim to originality, as the proposer of this term, but he has failed to prove his assertion. If his assertion be true, there can be no difficulty in referring to some record in our numerous medical works and periodicals for its attestation.

The term physician or surgeon-accoucheur is a classic hybrid, if I may venture to employ the term, and belongs to the same illiteracy as man-midwife, which shines so conspicuously on many of the brass door-plates of the old school, in this metropolis. There is even a ludicrous improvement on this term. A vender of fruit in the street was admitted, by a certain professor of obstetricy in one of the large hospital medical schools, to attend his lectures. This person, who keeps a fruit stall opposite his dwelling, thus apprizes the world of his callings, by means of a large brass plate on his door : " Mr. ———, Man-midwife and Accoucheur." His instructor ought to have added :—

O ! Lucina fave, novus ingreditur tua templa sacerdos.

The science of anthropogeny is one of the most important and positive in medicine. It comprises a vast deal of physiological inquiry regarding the formation, animation, and development of the human being, from the moment of conception, when it is only an atom in the vortex of infinity, and invisible to the naked eye, until aided by the microscope, although it contains the mind and body of the future man, the philosopher, the statesman, the emperor, &c. This part of our subject is designated *geneseology*, or generation. The next part of our investigation is termed *ovology ;* and after a certain period of intra-uterine life, it is designated *embryology*. The physical changes effected in the woman after conception, for the purpose of preserving and nourishing the offspring, are described in the section *encyophysiology*.

The next part, relating to anthropogeny, is *tocology*, or parturition—a physiological function, or vital process, which obeys the laws of mechanics with mathematical exactitude. This function is divided into *eutocia*, natural parturition, and *dystocia*, difficult parturition, which embrace a vast number of anormal states, that require to be sedulously studied by obstetricians.

Lochiophysiology comprises an account of the puerperal or child-bed condition in a normal state.

The second division refers to abnormal states of parturition, and to diseases of the generative organs in woman.

Gynæcopathology embraces the diseases peculiar to women. This is subdivided into *parthenosology*, or diseases of virgins ; *encyonosology*, diseases of pregnant women ; *dystocia*, or abnormal parturition ; and *lochionosology*, or diseases of women after delivery, while in the puerperal state.

The obstetrician has therefore to study the anatomy of the organs peculiar to woman (gynæcotomy), the physiology (gynæcophysiology), geneseology —generation (tocology and lochiophysiology), and also their diseases (gynæcopathology), including parthenosology (diseases of virgins), encyonosology

(diseases of pregnancy), toconosology or morbid parturition, lochionosology, or diseases of the puerperal state.

Pædophysiology is the natural history of the human being from the time of conception, during pregnancy, and from the period of birth to puberty. The medical practitioner has likewise to include, according to usage, ovonosology and embryonosology, fœtinosology and pædonosology. Pædonosology embraces the study of the diseases of the human offspring from the instant of its vivification to the epoch of puberty, which comprise all the diseases, from conception, during intra-uterine existence, at birth, and from birth to puberty. In fine, he has to study all medico-legal questions relating to anthropogeny and its subdivisions—as impotence and sterility, qualifications and disqualifications for marriage, divorce, ambiguity of sex, concealment of sex, abortion or prolicide, infanticide, signs of pregnancy—as in cases of reprieve and heirdom—duration of pregnancy as regards legitimacy, signs of delivery, substitution of a living for a dead infant, survivorship of the mother or infant when both die immediately after parturition, defloration or rape, and many other important questions*.

It is manifest, from the difficulties attendant on parturition, that medical practitioners ought to be preferred to midwives, who are wholly unfit in a great majority of cases.

Such is the arrangement which I have adopted in my lectures on obstetricy, and in my work on that subject.

The attention bestowed on the subject of generation, in all ages and nations, is attested by sacred and profane historians.

In my next lecture I shall give a brief account of the rise and progress of obstetricy, of anthropogeny, from the birth of the first of the human species to the present time.

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* A full account of all cases connected with Anthropogeny will be found in my Manual of Medical Jurisprudence, 2nd edit. 1836.

Reviews.

Pharmacopœia in usum Nosocomii Regii Glasguensis. Auctore R. M'Gregor, Chir. ejusdem Nosocomii Pharmacopœo, &c. Editio Secunda. 18mo. pp. 36. 1835.

(*Continued from p.* 816, vol. viii.

Injectio Liquoris Cupri Ammoniati.

℞. Liquoris Cupri Ammoniati minima triginta,
Aquæ Rosæ Gallicæ uncias quatuor. Misce.

Injectio Liquoris subacetatis plumbi.

℞. Liquoris subacetatis plumbi drachmam dimidiam,
Aquæ puræ uncias quatuor. Misce.

Injectio Nitratis Argenti.

℞. Nitratis Argenti grana octo,
Aquæ destillatæ unciam. Solve.

Injectio Sulphatis Aluminæ et Potassæ.

℞. Sulphatis Aluminæ et Potassæ grana duo,
Aquæ puræ uncias duas. Solve.

Injectio Sulphatis Cupri.

℞. Sulphatis Cupri grana tria,
Aquæ puræ uncias duas. Solve.

Injectio Sulphatis Zinci.

℞. Sulphatis Zinci grana quatuor,
Aquæ puræ uncias duas. Solve.

Periodis Hydrargyri Ruber (Deuto Ioduretum).

℞. Iodidis Zinci, in aquæ detillatæ partibus sex soluti, grana centum,
Perchloridis (Muriatis) Hydrargyri, in Aquæ destillatæ partibus viginti soluti, octoginta et quinque grana.
Solutio Iodidis Zinci addatur gradatim solutioni Perchloridis Hydrargyri donec præcipitatio cessaverit, dein lavetur materies præcipitata bis terve et postea siccetur.

Protoiodis Hydrargyri Flavus.

℞. Protonitratis Hydrargyri grana septuaginta,
Iodidis zinci scrupulos duos.
Solve sales seorsim in Aquæ destillatæ unciis tribus dein permisce: post subsidentiam effundatur liquor et lavetur protoiodis aqua frigida, dein siccetur. Dosis. Granum dimidium ad grana quatuor.

Iodis Plumbi (Ioduretum).
℞. Iodidis zinci grana centum,
Acetatis Plumbi grana centum et octodecim.
Solve sales seorsim in aquæ partibus decem et permisce ; lavetur
Iodis Plumbi bis terve aqua frigida et postea siccetur.

Iodis Potassii (Hydriodas Potassæ).
℞. Aquæ Potassæ quantum velis,
Huic, vasi vitreo inditæ et calore arenæ digestæ addatur Iodinum quamdiu liquor sit coloris expers: dein vaporet arenæ calore ad siccitatem et pulvis residuus albus calefiat in olla ferrea donec liquescat.
Solvatur massa frigefacta in aquæ calida et per chartam coletur, dein seponetur ut crystalli formentur.

Iodis Zinci (Ioduretum).
℞. Iodinii grana centum et viginti quatuor,
Zinci in frustula discissi grana triginti et quatuor,
Aquæ destillatæ uncias quatuor.
Inde simul vasi vitreo ; effervescentia vel actione finita, digeratur mistura donec fit coloris expers, dein vaporet calore arenæ, ut chrystalli formentur, qui siccentur ad sublimationem et serventur in vase bene obturato.

Linimentum Acidi Sulphurici.
℞. Olei Olivarum,
—— Terebinthinæ, utriusque uncias duas,
Tere simul dein caute adde
Acidi Sulphurici drachmam.

Linimentum Iodinii Anodynum.
℞. Tincturæ Opii et saponis uncias duas,
———— Iodinii drachmas duas. M.

Liquor Creosotæ.
℞. Creosotæ puræ drachmas duas,
Alcoholis fortioris unciam dimidiam,
Solve, et dein adde
Aquæ tepidæ libram et dimidiam.
REICHENBACH.

Liquor Cupri Ammoniati.
℞. Cupri, ex solutione sulphatis Cupri præcipitati ope Potassæ Carbonatis, et siccati, drachmam,
Aquæ Ammoniæ uncias duas. Solve.

Lotio Acidi Nitrici.
℞. Acidi Nitrici fortioris drachmam,
Aquæ puræ uncias quatuor. Misce.

Lotio Evaporans Usitata.
℞. Spiritus Hordei uncias quinque,
Aquæ Calcis uncias novemdecim. M.

Lotio Evaporans cum Acetate Ammoniæ.
℞. Spiritus Hordei uncias quatuor,
Aquæ Acetatis Ammoniæ uncias sex,
Aquæ uncias duodecim. Misce.

Lotio Flava.
℞. Perchloridis (Muriatis) Hydrargyri scrupulum,
Aquæ Calcis uncias quinque. M.

Lotio Muriatis (Hydrochloratis) Ammoniæ.
℞. Muriatis Ammoniæ drachmam,
Aquæ puræ libram. Solve.

Lotio Nigra.
℞. Calomelanos (Protochloridis Hydrargyri, drachmam,
Aquæ Calcis uncias sex. Misce.

Mistura Acidi Hydrochlorici (Muriatici).
℞. Acidi Hydrochlorici diluti P. L. drachmam.
Syrupi simplicis unciam,
Aquæ puræ libram. Misce.
Libræ duæ bibantur quotidie.

Mistura Acidi Nitrici.
℞. Acidi Nitrici diluti drachmam,
Syrupi simplicis unciam,
Aquæ libras duas. Misce.

Mistura Anisata.
℞. Sacchari purificati drachmas tres,
Mucilaginis Acaciæ Arabicæ drachmam,
Olei Volatilis Pimpinellæ Anisi drachmam et dimidiam.
Tere simul et adde paulatim
Aquæ Cinnamomi uncias sex.
Dosis, uncia.

Mistura Aromatica.
℞. Tincturæ Cinnamomi compositæ,
———— Gentianæ compositæ, utriusque, uncias duas,
Aquæ Menthæ Piperitæ uncias tres.
Misce.
Dosis, uncia dimidia ad unciam.

Mistura Astringens.
℞. Tincturæ Opii drachmam,
———— Kino vel Catechu unciam,
Olei Menthæ Piperitæ minima sex.
Misce.
Dosis, drachma post singulam alvi dejectionem liquidam.

Mistura cum Spiritu.
℞. Spiritus Hordei uncias quatuor,
Syrupi simplicis unciam,
Aquæ uncias sex. Misce.

Mistura Emeto-Cathartica.
℞. Tartratis Antimonii et Potassæ grana duo,
Sulphatis Magnesiæ uncias duas,
Aquæ libras duas. Solve.
Dosis, unciæ duæ secunda quaque hora.

Mistura Frigorifica Usitata.
℞. Muriatis Ammoniæ,
Nitratis Potassæ, utriusque triti, partes quinque,
Aquæ puræ partes sexdecim.
Adde sales bene mistas aquæ.

Mistura Mucilaginosa.
℞. Mucilaginis Acaciæ Arabicæ libras duas,
Syrupi simplicis uncias sex,
Aquæ libras duas cum semisse. Misce.
Dosis, uncia subinde.

Mistura Mucilaginosa cum Syrupo Hyosciami.
℞. Misturæ Mucilaginosæ uncias duas cum semisse,
Syrupi Hyosciami Nigri unciam dimidiam,
Acidi Sulphurici diluti minima quadraginta. M.
Dosis, cochleare parvum subinde.

Mistura Mucilaginosa cum Tinctura Conii.
℞. Tincturæ Conii Maculati unciam dimidiam,
Misturæ Mucilaginosæ uncias sex.
Dosis, uncia dimidia.

Mistura Mucilaginosa cum vino Tartratis Antimonii.
℞. Vini Tartratis Antimonii unciam dimidiam,
Misturæ Mucilaginosæ uncias sex. M.
Dosis, uncia dimidia tussi urgente.

Mistura Salina (Saline Julep).
℞. Carbonatis (Supercarbonatis) Potassæ purissimi drachmam,
Succi Citri Medicæ quantum satis sit ad saturationem,
Syrupi Zinziberis unciam,
Aquæ puræ uncias quinque. M.
Dosis, uncia.

Mistura Salina Diaphoretica.
℞. Aquæ Acetatis Ammoniæ uncias sex,
Vini Tartratis Antimonii unciam dimidiam,
Syrupi simplicis unciam,
Aquæ uncias duodecim. Misce.
Dosis, uncia, secunda quaque hora.

Mistura Scillitica.
℞. Misturæ Mucilaginosæ uncias sex,
Syrupi Scillæ unciam. Misce.
Dosis, uncia dimidia.

Mistura Scillitica cum Tinctura Opii.
℞. Misturæ Scilliticæ uncias septem,
Tincturæ Opii drachmam. Misce.

Mistura Quiniæ Aromatica.
℞. Sulphatis Quiniæ scrupulum,
Acidi Sulphurici Aromatici unciam.
Solve.
Dosis, Guttæ decem ter indies.

Mistura Vinosa.
℞. Vini Rubri uncias sex,
Spiritus Hordei unciam et dimidiam,
Syrupi simplicis unciam dimidiam,
Aquæ puræ uncias quatuor. Misce.

Morphia (Opium).
Morphiæ Acetas,
——— Murias,
——— Sulphas,
Dosis, singulorum, grani quadrans ad granum.

Oleum Camphoræ Ammoniatum.
℞. Olei Camphorati uncias quatuor,
Aquæ Ammoniæ unciam. Misce.

Oleum Napi Sylvestris (Sweet Oil).

Pilula Sulphatis Quiniæ.
℞. Sulphatis Quiniæ granum, vel Bisulphatis granum et dimidium,
Extracti Gentianæ grana duo.
Misce, et fiat Pilula.

Pilulæ Acetatis Plumbi.
℞. Acetatis Plumbi grana sex,
Electuarii Opiati vel Aromatici, q. s.
Subige in massam in pilulas duodecim dividendam.
Dosis, una ter indies.

Pilulæ Alœs et Hydrargyri (Abernethy's Pills).
℞. Massæ Pilulæ Hydrargyri,
——— Pilulæ Alœticæ, utriusque, drachmam dimidiam,
Syrupi simplicis quantum sufficiat.
Subige in massam in pilulas duodecim dividendam.
Dosis, una vel duæ.

Pilula Capsici Annui.
℞. Pulveris Baccarum Capsici grana duo,
Subige in massam cum syrupo simplice et fiat Pilula. Dosis, duæ ter indies.

Pilulæ Chalybeatæ.
℞. Pulveris Alœs socotorinæ drachmam.
——— Sulphatis Ferri scrupulum,
Extracti Gentianæ quantum sufficiat.
Subige in massam in pilulas viginti dividendam.
Dosis, una ter indies.

Pilulæ Hyosciemi cum Submuriate Hdrargyri.
℞. Submuriatis Hydrargyri,
Pulveris Alœs Socotorinæ,
——— Convolvuli Scammoniæ, singulorum, granum.
——— Pulpæ Cucumeris Colocynthidis granum dimidium.
Extracti Hyosciami granum et dimidium.
Misce, fiat Pilula. Dosis, una vel duæ.

Pilulæ Hyosciami et Gentianæ.
℞. Extracti Hyosciami Nigri,
——— Gentianæ, utriusque, drachmam dimidiam,
Misce et divide in pilulas duodecim,
Dosis, grana quinque ter indies.

Pilulæ Hyosciami et Camphoræ.
℞. Extracti Hyosciami Nigri,
Camphoræ, utriusque, drachmam dimidiam,
Alcoholis fortioris minima decem.
Tere Camphoram in pulverem ope Alcoholis et subige cum extracto in massam in pilulas duodecim dividendam.
Dosis, grana quinque ad decem.

Pilulæ Nitratis Argenti.
℞. Nitratis Argenti triti grana sex,
Electuarii Aromatici quantum sufficiat.
Subige in massam et divide in pilulas duodecim.
Dosis, una ter indies et augeatur ratione unius quotidie*.

* Crumb of bread, which is often substituted for the electuary in making the above pill, is highly improper, as it contains Chlo-

Pilulæ Opii.
℞. Opii Mollis grana duodecim,
Divide in pilulas duodecim.

Pilulæ Olei Crotonis Tiglii.
℞. Olei Crotonis Tiglii guttam,
Massæ pilulæ Colocynthidis grana quinque.
Misce, et fiat Pilula.
Dosis, una vel duæ.

Pilulæ Protoiodis Hydrargyri flavi.
℞. Protoiodis Hydrargyri grana sex.
Farinæ Tritici Hyberni grana viginta et quatuor,
Extracti Gentianæ Luteæ quantum satis sit ad formandam massam, in pilulas duodecim dividendam.
Dosis, una vel duæ ter indies.

Pulvis Antimonialis.
℞. Oxidi Antimonii P. D. granum,
Sulphatis Potassæ grana viginti et quatuor.
Tere bene simul in mortario.
Dosis, grana sex.

Pulvis Submuriatis Hydrargyri et Elaterii.
℞. Submuriatis Hydrargyri grana tria,
Pulveris Extracti Elaterii granum dimidium,
——— radicis Zinziberis granum.
Misce.
Fiat pulvis sumendus tertia quaque hora ad alvi plenam solutionem.

Pulvis Columbæ et Magnesiæ.
℞. Pulveris radicis Columbæ,
Magnesiæ Ustæ, utriusque unciam,
Pulveris Corticis Lauri Cinnamomi drachmam.
Misce, Dosis, drachma.

Pulvis Diureticus Usitatus.
℞. Bitartratis (Supertartratis) Potassæ scrupulum,
Nitratis Potassæ grana decem,
Pulveris radicis Scillæ Maritimæ granum,
——— Foliorum Digitalis Purpureæ granum dimidium.
Misce, fiat pulvis ter indies sumendus.

Pulvis Diureticus cum Submuriate Hydrargyri.
℞. Pulverum Diureticorum Usitatorum unum.
Submuriatis Hydrargyri,
Pulveris Amomi Zinziberis, utriusque, granum.
Misce.

Pulvis Muriatis (Hydrochloratis) Auri et Sodæ cum Amylo.
℞. Muriatis Auri et Sodæ triti granum,
Amyli triti grana duo.
Misce optime et divide in pulveres quindecem.
Fricetur unus ex iis linguæ et gingivis semel indies. Magendie.

Pulvis Rhei compositus (Gregory's Mixture).
℞. Magnesiæ Ustæ unciam,
Pulveris Radicis Rhei Palmati unciam dimidiam.
——— Amomi Zinziberis drachmas duas,
Misce. dosis, Cochleare parvum.

Pulvis Columbæ et Sodæ.
℞. Radicis Columbæ,
Bicarbonatis Sodæ, utriusque triti, grana decem.
Misce. fiat pulvis ter indies sumendus.

Pulvis Sabinæ compositus.
℞. Pulveris Sabinæ,
——— Acetatis Cupri, utriusque, partes æquæles. Misce.

Pulvis Strychniæ cum Saccharo.
℞. Pulveris Strychniæ granum,
Sacchari purificati scrupulum.
Tere simul et divide in pulveres octo,
Dosis, unus ter indies.

Quinia (Cinchona Cordifolia).
Quinia sulphas.
Dosis, granum ad grana decem.

Secale Cornutum (Ergot of Rye).
Dosis, grana decem ad drachmam dimidiam.

Serum Acetosum.
℞. Lactis vaccini libras duas,
Aquæ libram.
Mistis et ebullientibus adde
Acidi Acetici tenuis unciam. Coagulum aufer.

Serum Aluminosum.
℞. Lactis vaccini calefacti libram,
Sulphatis Aluminæ et Potassæ scrupulos duos.
Coque paulisper dein coagulum aufer.

Sinapismus.
℞. Seminum Sinapis Albi tritorum,
Micæ panis, utriusque, partes æquales,
Acidi Acetici tenuis quantum satis sit. Misce. Vel.
℞. Seminum Sinapis Albi ullam quantitatem,
Aquæ bullientis quantum satis sit.
Misce.

Solutio Acetatis Plumbi.
℞. Acetatis Plumbi drachmam,
Acidi Acetici tenuis drachmas duas,
Aquæ puræ libram. Solve.

Solutio Acetatis Morphiæ.
℞. Acetatis Morphiæ grana quinque,
Acidi Acetici minima viginti,
Aquæ destillatæ unciam. Solve.
Dosis. drachma dimidia ad drachmam.

Solutio Carbonatis Ammoniæ.
℞. Carbonatis Ammoniæ scrupulos duos,
Syrupi simplicis unciam,
Aquæ uncias quinque. Solve.
Dosis, uncia.

Solutio Percyanidis (Cyanureti) Hydrargyri.
℞. Percyanidis Hydrargyri granum,
Aquæ destillatæ unciam. Solve.
Dosis, drachma.

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ride of Sodium, the antidote for Nitrate of Silver.

Solutio Chloridis Calcis.

Fit ex duobus ad grana decem ad unciam aquæ.

Solutio Chloridis Sodæ (Labarraque's liquor).

℞. Solutionis Chloridis Calcis (Sp. Gr. 1.010) uncias sex,
Bicarbonatis Sodæ in aquæ uncia dimidia soluti grana quatuordecim.
Misce solutiones et cola per chartam.
Servetur in vase bene obturato.

(To be continued.)

HISTORY OF MEDICINE IN CHINA.

(*Continued from Page* 831, *Vol. VIII.*)

"*Certain Medicines.*—An account of Heuen-ming-fun: translated from the Pun-tsaqu-kang-muh. (Vol. 13, sec. 11, p. 23.)

"The specimen now before us, called by the Chinese Heuen-ming-fun, is, our president says, distinctly the Sulphate of Soda, the Salt named after Glauber, the German chemist, who discovered it, in examining the residuum of the decomposition of common salt, by means of sulphuric acid.

"This admirable Salt of Glauber, as it was styled in Europe, where it has not yet been known two centuries, (for 1646 was the era of Glauber), became famous in China about twelve centuries ago. But there are slight notices of the Puh-seau-leen-ne, Mother of Saltpetre, being formed, by artificial means, into crystals, and taken as a medicine, in the Materia Medica of Shin-nung, the divine husbandman, who lived 4900 years ago.

"The notoriety of the Sulphate of Soda, in China, was occasioned by the following circumstances:—

"The Emperor, Tang-ming-hwang-te, having heard, that in the southern mountains there lived a Taou-sze, or disciple of the Chemical or Alchymical School of Laou-tsze, summoned him to court, and inquired of him the means by which he had attained so great an age. The Alchymist, whose name was Lew-heuen-chin, attributed his longevity to the use of the admirable Salt of Glauber, or the Heuen-ming-fun of China, which takes part of its name from the aged Alchymist, as the Sulphas Sodæ did, for a long time, from its discoverer. The virtues attributed to this medicine are, the removing a sensation of heat in the region of the heart; a parched feeling in the mouth; removing obstructions in any of the viscera; swellings, and so forth, by its purgative qualities; or, in one word, it possesses cathartic and diuretic qualities of the most salubrious tendency; being a most effectual cleanser and purifier of the system. Those who take this medicine (says the original), never need fear any illness.

"The aged Alchymist said to the Emperor, that he could cure by it, an hundred and twenty forms of disease; and two pages of the Pharmacopœia are filled by a rehearsal of their names. From the attention of the Emperor to the subject, the Sulphas Sodæ, in China, was called, the Yu-yo, the Royal Medicine; and Pih-lung-fun, White Dragon (an Imperial) Powder was an appellation given to it by the Court Physicians.

"Its high reputation made it a sort of fashionable Cheltenham Salts, and induced some persons to use it constantly, and to excess; which brought upon it the reproach of one medical writer; but, in time, it formed, and maintains its proper place in the Meteria Medica. In the west also, I believe, it is no uncommon case for medicinal substances to be over-praised, neglected, and revived, by turns.

"In European books I read, (Encyclopædia Britannica, vol. 6, page 42), that the Chinese do not consider the knowledge of any branch of medicine, in the smallest degree necessary; and again, that their books are mere enumerations of the names and qualities of different plants.

"In a former paper I stated to you, that the Chinese called medicine, by way of eminence, the benevolent art; and a good physician they hailed as the arm of his country. (Most honourable appellations.) The government support a College of Physicians, amounting, in number, to a hundred persons—and yet Edinburgh writers tell us, the Chinese do not consider medicine in the smallest degree necessary. We know that the Chinese Materia Medica are taken from all the kingdoms of nature, animal and mineral, as well as vegetable; and yet we are told, it is confined to a few plants; a few simples, as some say, as the admirable Salt of Glauber, which has been known in China from time immemorial.

"Whence is it that scientific men in Europe speak so dogmatically of things about which they know so little? Why is this age of reason so eminently an age of self-complacency?

"The Chinese hold together, in tolerable comfort, the greatest associated population under heaven—yet, with some, they know nothing of government.

"Their health, and age, and increase of numbers, are, I dare say, equal, in proportion to the nations of Europe; yet it is affirmed they know nothing of the healing art. There has never been a medical man in Europe, who could, in conscience say, he thoroughly knew what the Chinese taught and practised in medicine. A few garbled extracts from Wang-shuh-ho, by no means one of the first names in China, and the hasty reports of embassy travellers, are the data on which learned and scientific men venture to pronounce their sentence of condemnation on things which they know not, and to flatter into a pernicious self-conceit

both themselves and their young Edinburgh pupils. Thus, Dr. Gregory, addressing the young Scotch lads who composed his class, says, in the greatest, most ancient, and most civilized empire on earth—no such good medical aid can be obtained, as a smart boy of sixteen years, who had been but twelve months apprentice to a good and well employed Edinburgh Surgeon, might reasonably be expected to afford. I mean not to affirm any thing positive about the rank Chinese medicine holds; but I regret deeply, and reprobate strongly, the injudicious conceit and self-complacency which such speeches proceed from, and tend to cherish in others; and those young students of medicine, some of whom—probably from Gregory—should visit China; because such self-complacency, and contempt of others, is a complete check to the object of our Society, viz. physical research in this country.

"I incline to our president's opinion, that the Chinese are in possession of facts, respecting the healing art, probably derived from the great progenitor of human kind; who taught his descendants the knowledge he received from the Omniscient Creator; but which physical knowledge, like the knowledge of God himself, has been, by the wickedness of man, gradually obscured, though not entirely lost; and to ascertain the truth, by an extensive knowledge of the subject, is worthy the attention of a philosopher; whereas, to decide with a contemptuous scorn, from a very partial induction of particulars, is (not to say, unamiable and unchristian, but also) extremely unphilosophical.

"European terms of science are chiefly of Latin or Greek etymology, to which the Chinese nomenclature has no resemblance; and as no European philosopher, or physician (that I know of), has ever studied Chinese technical terms, and accommodated them to European terms, with a precise definition of their import, it is not to be expected that the occasional rendering, given to scientific terms, by general students of the Chinese language, at the spur of the moment, and drawn only from the common use of those terms, should be accurate; and we should be careful to avoid the littleness of vulgar minds, which induces them to despise ideas couched in an uncouth, a halting, or a strange phrascology.

"But I appear to have wandered from the subject—however, it is only in appearance, for the subject of this paper, viz. the Sulphas Sodæ, is at once an illustration and a confirmation I what I have said.

A common reader of Chinese would translate Heuen-ming-fun, by the English words, black bright powder; and its synonym, Pih-lung-fun, by white dragon powder; but, under these odd names, none but the patient inquirer could ever discover the admirable Salt of Glauber.

The Chuh-hwang, of China.—It is so called to denote its being a yellowish substance, procured from the inside of large bamboos, in the southern and more marshy regions of the country.

One of the synonyms is Teen-chuh-hwang, which means, the Indian yellow substance; and some think proves, that it originally came from India. They consider it a concretion of sand in the hollow centre of the bamboo.

It is chiefly used in diseases of children—especially frights and convulsions.

Its medicinal virtues are much the same as another drug, procured from the bamboo, and called Chuh-leigh, Bamboo exudations.

The Chuh-hwang, it is added, has all the good properties of the last named medicine, without any of its deleterious effects.

(*To be continued.*)

Cases illustrative of the Effects produced when the Arteries and Brain are diseased: selected chiefly with a View to the Diagnosis in such Affections. By Dr. Bright.

It very frequently happens, when listening to the detail of symptoms, in connexion with deranged cerebral circulation and threatened apoplexy, that we find the patient laying considerable stress upon a constant or frequently recurring pain diffused over the occiput, and often most distinctly referred to that part to which the occipital nerve, or a large branch of the second cervical nerve, which issues from behind the upper part of the sterno-mastoid muscle, is distributed. I am not aware that the cause of this symptom has been discovered or specified; and yet its frequent existence seems to stamp it with sufficient importance to give it a claim to our attention, more particularly if we can draw from it any distinct diagnostic results.

It has long appeared to me that this painful affection was most prominent in those cases where the connected circumstances rendered it probable that the arteries of the brain were diseased: and, from an opportunity which has lately occurred to me, I am induced to believe that I may be correct in ascribing the pain to that cause. If future observations should confirm this, the fact will be both interesting and important; as it will enable us to ascertain the condition of the arteries of the brain with more certainty than our present indications will ensure; and more particularly to point out the probable condition of the vertebral arteries, which, from their situation, may well be considered amongst the parts of the body least accessible to actual observation.

The symptoms to which I refer will be best exemplified by the statement of two or three cases.

CASE 1.—*Symptoms respecting Disease in the Arteries of the Brain, accompanied by Pain in the Occiput.*

A gentleman, past the meridian of life, after exposure, four years ago, first became the subject of an attack, which, by the description, appears to have been apoplexy from vascular congestion. Since that time he has been subject to various nervous affections:—vertigo; pain in the head, accompanied by sickness; palpitation of the heart; muscular weakness, particularly of the lower extremities; confusion of mind; and, latterly, a slight attack of hemiplegia of the left side, from which he has completely recovered. Still, however, the symptoms recur; and, amongst the rest, the most frequent complaint he makes is, of what he calls a rheumatic pain at the back of the head, which he refers precisely to the space behind the mastoid process, spreading thence over the occiput. This pain sometimes occurs on both sides, but more frequently on the right. He is, at times, exceedingly irritable, and his spirits very low; after which, he says, "I feel completely knocked up, and have much pain in the back of the head, like a rheumatic pain, generally at the same spot, the right side of the back part of the head."

CASE 2.—*Symptoms bespeaking Disease in the Arteries of the Brain, accompanied by Pain in the Occiput.*

A gentleman, approaching the fiftieth year of his age, consulted me, a few years ago for a pain, which he considered muscular, in the back of the head; an occasional feeling in the chest, as if the heart ceased to beat; and several nervous symptoms. I found that he had previously suffered one or two seizures, in which giddiness and momentary loss of recollection had occurred. I lost sight of him for a year or two: and when he again consulted me, I found that, in the interval, he had experienced a serious attack of paralysis of the portio dura, on the left side; from which he was then very gradually recovering. But, amongst the other symptoms, that on which he laid the greatest stress was his headach; which he described as being of two kinds, one occurring occasionally, which he considered common headach: the other much more frequently, and consisting of a pain in the posterior part of the scalp, and which, he said, he scarcely knew whether to consider as rheumatism or as headach. He pointed out the place occupied by this pain most minutely, placing his finger just behind the mastoid process, and carrying it along the occiput.

CASE 3.—*Symptoms bespeaking Disease in the Arteries of the Brain, accompanied by Pain in the Occiput.*

H. B., aged 49, was admitted into Guy's Hospital, under my care, June 22, 1835, with impaired memory, and great difficulty of applying the proper words to express his ideas. There was much vacancy in his countenance, and he was troubled with a constant giddiness, which he compared to feeling tipsy. None of the voluntary muscles were absolutely paralysed, but there was general weakness, and he complained much of a pain in the back part of the head, which he distinctly referred to those parts where the great occipital from the first, and the small occipital from the second cervical nerve are distributed: this pain was increased by pressure, and varied somewhat with position. It appeared, that about a year and a half before his admission, he suddenly fell senseless to the ground: in consequence of which, he was attended by Mr. Robert Dunn, who bled him freely; but it was nearly three weeks before he recovered his consciousness: and, although he has had no renewal of the attack, he has never been completely free from his present symptoms. I tried a variety of remedies; first, slight alterative mercurials, and afterwards different forms of tonic medicine; as, the mineral solution—compound steel mixture—ammonia; while, at the same time, his bowels were kept freely open; and counter-irritation maintained, first by tartarized antimony, and afterwards by means of repeated blisters. His symptoms underwent frequent variations, the pain being on some days greater, and on others less, and referred to different parts, but chiefly to the left side of the occiput and the right temple. He had frequently great despondency of mind, and sometimes a kind of hysteric cough interrupted his articulation. Upon the whole, he seemed to derive most benefit from repeated blisters applied to the occiput, under the use of which the pain at the back of the head was greatly reduced; but the giddiness and inability to express himself, though often relieved, frequently recurred. The liquor potassæ seemed likewise to produce a beneficial effect upon his general health.

Now, in the foregoing—which may be considered as fair representatives of cases frequently occurring in practice—we have a series of symptoms, which would lead us very directly to conclude that the cerebral circulation was greatly deranged, and had probably suffered such interruption, as to lead to rupture of vessels, or partial disorganization of substance. They are, in fact, cases in which we should be inclined to anticipate that disease would be discovered, after death, in the coats of the arteries of the brain: but what I wish to assert, is, *that the probability of such a change having taken place in the vessels is considerably increased in each of these cases, because the occipital pain has been a prominent symptom; and further, that this pain would, of itself, chiefly direct our sus-*

picions to disease of the vertebral arteries: for if we turn our attention to the position of the suboccipital and two superior cervical nerves, relatively to the vertebral artery, we shall perceive that the suboccipital nerve lies side by side with the artery where the latter makes its turn in the groove of the upper edge of the atlas; and that the second cervical nerve, on issuing from the spinal canal, passes close to the artery; whilst the anterior division of the first cervical nerve passes directly across the artery, on its way to join the cervical plexus. When these circumstances are borne in mind, we shall find no difficulty in admitting the high probability, that if the artery become diseased, it may *directly* excite pain and irritation in parts to which the suboccipital and second cervical nerve are distributed, and similarly affect those supplied by the great occipital (which is the posterior division of the first cervical nerve), *by means of a reflex action:* and cases, in which I had other opportunities of connecting the post-mortem appearances with the symptoms before death, brings the point nearer to a demonstration, though it still leaves room for doubt.—*Guy's Hospital Reports.*

ON THE PUTREFACTION OF ANIMAL MATTERS.

Putrefaction in the Open Air, Water, and Earth.—There is no sign of death so certain as *putrefaction*, when it is established; and it is greatly to be regretted that we do not as yet possess a complete history of its phenomena, which would enable us to decide with perfect accuracy the exact time that has elapsed since death. But this subject is extremely complicated and obscure, because putrefaction undergoes a train of varieties in its progress, and the alterations which effect it. I shall give as complete an account of it as the present state of science permits. Putrefaction is modified by age, state of the constitution, locality, as in the air, water, and earth, by temperature, humidity, dryness, &c. Thus, animal matters are preserved from its action when they are congealed, and even in very cold weather, when they are in contact with substances which impede their humidity, as lime, muriate of soda, or when combined with tannin, camphor, aromatics, resins, &c.; and when they are deprived of oxygen. Air which is very dry and hot desiccates and mummifies the body; whilst warm and humid air very much hastens its decomposition. The fœtus and young infants resist putrefaction in the open air much longer than adults, who present many varieties according to the duration and nature of the disease of which they died, their state of *embonpoint* (plumpness), emaciation, infiltration, &c.

Putrefaction in the Open Air is generally accomplished in a month; the conversion of the coloration of the skin into green commences within the first four or five days after death; the epidermis is detached in two days afterwards; the green tint now becomes brown; the internal organs resist the progress of decomposition, as they are not exposed to the air, in the same way that entire subjects resist it more than those that are opened; and as the putrefaction is accelerated in the limbs by incision, which every anatomical student has observed.

A fœtus died in the evening, having been exposed to the air. On the next morning the skin was streaked with green spots, and larvæ were developed on it. On the seventh day the skin over the parietes of the abdomen was detached, the muscles destroyed, and the viscera reduced to blackish shreds, and exhaled an excessively fetid odour.

Another fœtus that had not been opened was also exposed to the air; the brown colour of the skin existed on the fifth day, and the epidermis was not separated, but in small shreds, and the viscera were in a perfect state of integrity. (Orfila.)

We know that the very rapid putrefaction in the gas of privies depends on the great degree of humidity; and it is also necessary to take into account the state of the temperature.

Putrefaction in Water is not in general completed sooner than six weeks; it is more rapid in running than in stagnant water; the muscles begin to soften, the fat is saponified, and forms ammoniacal margarates and oleates, a kind of alteration which does not take place in the open air.*

Putrefaction in the Earth.—The progress of the putrefaction of the animal body consigned to the earth will vary according to age, sex, habit, constitution, soil, &c. This will fully appear by the perusal of the following remarks:—

On Inhumation and Exhumation.—On the 30th of July, 1823, M. Orfila was requested to be present at the exhumation of the body of a person who was supposed to have been poisoned, that had been buried a month. The gas which escaped from the coffin was extremely fetid after the removal of the body, and exposure to the air; but on pouring some pints of the solution of the chloride of lime into the coffin, it was disinfected in a few minutes. The tumefaction was extreme, the skin of the head was of a blackish brown colour, of a white rose-colour at the superior part of the face, blackish about the lips and neck. It was streaked with black round the nipple, and of a dirty white colour on the abdomen and sides of the trunk. The scrotum was the

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* *Margarate* is a salt formed by the combination of margaric acid with a salifiable base. Oleate is a salt formed with oleic acid and a salifiable base.

size of an adult's head. The epidermis was easily raised and separated with the nails of the toes. The skin was resistent, and could not be torn with a forceps; the muscles were slightly softened, of a rosaceous colour, and in distinct bundles. On examining the viscera, the stomach was found distended with gas, and the *morbid alterations were as evident as if the body had been opened* the day after the death of the individual. The liver, spleen, bladder, lungs, and heart, were without odour, and without any trace of decomposition. It was easy to discover the presence of the oxide of arsenic, a few grains of which were found whitish and hard about the termination of the ileum.

It results from the observations and researches of M. Orfila (*Traité des Exhumations Juridiques*, 1833), and of many others, that putrid decomposition advances differently according to the following circumstances:—"The causes," says M. Orfila, "relate to age, constitution, sex, state of thinness or obesity, the mutilation or integrity of the body, the kind and duration of the disease which caused death; to the phenomena which immediately preceded death, which had happened after more or less agony, or suddenly; to the time of inhumation—to the appearance of insects on the surface of the body—to the nature of earths or soils—to the depth of the graves—to the naked or enveloped state of the body—to the state of the habiliments—to the presence or absence of a coffin, which may be of oak, deal, lead, iron, &c., to the atmospheric influences, such as temperature, degree of humidity, &c."

Age.—All things being equal, the dead bodies of very young infants buried in earth, more quickly decompose than those of adults or old men.

Constitution.—The bodies of individuals of a lymphatic temperament, who die of epidemics, or even the same disease, will undergo putrefaction very differently; it will be in an advanced state in the one, and have scarcely commenced in the other.

Sex.—All things being equal, the predominance of the lymphatic system, and of the greater quantity of fat in the subcutaneous cellular tissue in woman, generally cause putrefaction to progress more rapidly in her than in man.

State of Thinness, or Obesity.—The latter favours putrid decomposition in bodies buried in the earth.

State of Mutilation, or Integrity of the Subject.—Repeated and daily observations have proved the rapidity of putrefaction of dead bodies, which present solutions of continuity, and it is also well known that contused and ecchymosed parts, in which blood is effused, putrefy much quicker than those which are in the opposite condition; and even when there is no loss of substance, and no trace of solution of continuity in the skin; with much more reason will this difference be remarkable, if a contused wound has been inflicted during life.

Genus and Duration of the Disease that destroyed Life.—Putrefaction advances much more rapidly in general in those who have died of acute than of chronic diseases which have attenuated the body. The predominance of the fluids over the solids in the first, sufficiently explain the reason of this fact. It would be most curious to determine by numerous experiments the comparative influence of the different genera of acute diseases on the development of putrefaction; but to accomplish this inquiry it would be necessary to inter several bodies, which had been destroyed by encephalitis, pneumonia, gastro-enteritis, &c. It is known, however, that putrefaction advances more slowly after severe hemorrhages, than when the vessels are distended with blood, as in asphyxia; that those who die of anasarca, putrefy much more rapidly that those who perish by smallpox, or any other pustulous disease, decompose more rapidly than the former. In fine, that those diseases which deteriorate the blood are succeeded by rapid putrefaction.

Phenomena which may immediately precede Death.—According as death is sudden or preceded by a disease which continues for some days; as this terminates by a long or short agony, or if the blood be contaminated by the introduction of any virus into it, the progress of putrefaction will be more or less rapid; but we cannot justly appreciate each of these elements.

Epoch of Inhumation.—Putrefaction advances more rapidly in the air than in any other situation; but if decomposition has not commenced before the interment of the body, it will be retarded more than if it had commenced some hours or days previously: it does not commence until cadaveric rigidity has ceased, and it is manifest that the duration of this last phenomenon is not the same in different dead bodies; some are flexible at the time of burial, others remarkably rigid—the former have commenced putrid decomposition before inhumation. This rigidity is retarded by heat and advanced by cold; and that which causes a different progress in putrefaction, habiliments of wool, linen, or whether the body is naked, or placed in a cold or warm chamber.

Appearance of Insects.—When bodies are exposed to air before inhumation, certain flies deposit their eggs upon the skin, which, hatched after some time in the coffin, give birth to other flies, and these after being fecundated can still reproduce seven or eight generations, and multiply to infinity.

The insects which shew a preference for the dead body, and whose eggs are deposited on the surface, are the following:—

musca tachina, &c. (Sedillot, Manuel de Med. Legale, p. 384 to *Capisma*, 384)*.

Flies do not deposit their eggs on the dead body for some time after death, but do so when putrefaction commences. Thus, if we inter two bodies, one on whose surface there are no eggs, and another on which there are millions, the latter will, under the same circumstances, putrefy more rapidly than the former; because it is the property of larvæ to destroy our tissues for their nourishment. But some flies, as the musca tachina simplex, do not exist in winter, and can have no influence in hastening putrefaction during this season, though they were found in the coffins of persons interred in winter. M. Orfila cannot account for this fact.†

Different Earths.—M. Orfila examined animal putrefaction in four different earths, and of these he gives the following account, which is highly instructive, and are mentioned in his conclusions, which will be found in a subsequent part of this chapter. Earths hasten or retard putrefaction from many causes.

Situation.—Two soils of the same description, one elevated and on a declivity, the other in a valley, will not act in the same manner upon bodies: the first being much drier will retard the progress of decomposition, whilst the latter may favour it.

Humidity.—Putrefaction never developes itself when bodies are dried: on the contrary it progresses rapidly in a humid spot.

Their Chemical Nature.—By which is understood the composition of the earth, not only as formed of many metallic oxides, sulphate and carbonate of lime, &c., but also its accidental composition, gases more or less fetid, and animal matter in a state of total or partial putrefaction, being contained in them.

I shall also add some experiments made with four different earths; namely, 1st. earth taken from the cemetery of Bicêtre; 2nd. from the garden of the Faculty of Medicine of Paris; vegetable (peat or bog) earth; 4th. sand.

1. *Bicêtre earth* is yellowish, and chalky, and presents none of the characters of vegetable earths (*terreau*). On analysis, it yielded highly azotised organic matter, soluble in water, sulphate of lime, insoluble organic matter, flint and siliceous sand, carbonate of lime, oxide of iron, phosphate of lime, and alum.

2. Earth from the garden of the Faculty differs from the former in having much less azotised organic matter, and containing vegetable remains in a very advanced state of decomposition, also a great deal of carbonate of lime, and some sulphate of lime.

3. Vegetable, peat, earth, or bog (terreau), is characterised by the large quantity of vegetable remains which are far less decayed than in garden earth, so that this is a much more vegetable earth; it is principally formed of silex and carbonate of lime.

4. Sand is principally siliceous and very ferruginous, with some traces of silex, and scarcely any carbonate of lime.

Depth of the Grave.—The greater the depth of the grave, the more will putrefaction be retarded, because the earth is colder in proportion to its depth from the surface.

The Naked or Covered State of the Body.—Experience has proved that bodies in immediate contact with the earth, more readily putrefy than others; thus, a body interred naked will more rapidly decay than one covered with a shroud of any kind, or a coffin.

Atmospheric Influences.—It is sufficient to mention the influence of atmospheric heat and humidity to convince the reader of their power in accelerating putrefaction. What, says Orfila, will now be thought of the opinion of Burdach on the mode of the putrefaction of the body in the earth.

According to him, there are three periods in this decomposition (Physiology, Leipsic, 1810); that the decomposition of a dead human body is gradually accomplished, and may be divided into three periods: the first is fermentation, which lasts *several months*; there is then a swelling of the body by the development of gaseous substances, with extreme fetidity. During the second period, which continues for *two or three years*, the soft parts are converted into a greenish pultaceous matter, or a deep brown; the body subsides, because it is volatilised to a considerable extent, and is converted into carbonous, sulphurous, and phosphorous hydrogen, forming carbonic acid, ammonia, and water in a state of aeriform fluidity. During the third period, the gaseous productions escape, the odour of fetidity is replaced by that of mouldiness, and there remains a terreous, greasy, friable, brownish, and black substance. This is composed of lime, oxygen, and unctious carbon, which forms by moisture, and which is not converted, for a considerable number of years, into dust, which mixes with the common earth in the shape of vegetable earth (terreau).

Maret concludes that the time necessary

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* For an elaborate article on this head see Good's Study of Medicine.—Helthelminta—(Worms.)

† See note in Dr. Fletcher's account of putrefaction towards the end of his article.

If the body be sprinkled with pyroligneous acid or solutions of the chloruets of lime or soda, or creosote, the incursion of insects will be arrested. It is also said that pyroligneous acid rubbed on hop-poles produces the same effect. It is alleged that all insects have a great objection to this acid—it cures hams, and is a powerful antiseptic.—M. R.

for the decomposition of the soft parts of a dead body is *three years*, when the grave is four feet in depth, and *four years*, when it is from six or seven feet from the surface of the earth. (Marc. Dict. des Sc. Med. 1815. Art. *Exhumation.*)

M. Orfila declares the preceding conclusions erroneous, and calculated to lead the uninformed into error. He has repeatedly observed bodies exhumed after ten, fifteen, forty, and fifty days' interment, which were sunken, and not distended as M. Burdach supposed they must be for *several months.* Thus, tumefaction of the body is not always present at the commencement of putrefaction, and it is frequently absent; and when it exists, it does not in general continue for so long a time as indicated by Burdach. As to the second period mentioned by this author—the sinking of the body—it is not correct to state, that soft parts are always converted into a *pultaceous matter;* "have we not seen these parts generally dry, reduced into lamellæ (layers), or coralliform filaments, and some of them even imitating a kind of pasteboard (cartonnage). Again, how can we admit that this period continues for two or three years, whilst in most of our observations, the bodies were almost reduced to skeletons at the end of fourteen, fifteen, or eighteen months, even though they had been interred in coffins and enveloped in linen? Lastly, the greasy matter that remains during the last period of putrefaction is not earthy or friable, it is a sort of soft oleaginous cart-wheel grease (cambouis mou).—*Orfila, op. cit.*

There are, however, many shades of difference in the progress of animal putrefaction. Bodies have remained perfect after having been buried for many years. General and medical writers have recorded numerous facts of this kind. Limprecht has noticed a curious case:—*De Manu in sepulchro ultra sæculum ab omni putredine conservata.* He also states that in passing a convent in Narbonne Gaul, he saw several bodies in a state of preservation which had remained a long time in their sepulchres. Faber mentioned a singular case to Hildanus—*De cerebro non putrefacto in cadavere quinquagenis annis sub terra reposito.* R.

The London Medical
AND
Surgical Journal.

Saturday, January 30th, 1836.

FLOURISHING STATE OF THE NORTH LONDON HOSPITAL.

The North London Hospital, as we long anticipated, has continued to flourish in a remarkable manner. The report for 1834-5 has just been issued, and gives a statement the most sanguine of its friends could scarcely have anticipated. The principles on which the North London Hospital are established, must ensure for it a further extension of success. We perceive that the fees paid by students alone, for attendance during the above period, is 3130*l.* 1*s.*—a sum which when the lowness of the fee is considered, bears the best evidence of the support the institution has received, and is likely to receive from the students. We have reason to know that the Fees paid since the period at which the Report closes, have averaged, if not exceeded the amount there advertised. Let the monopolists look to this—and let the "Medical Gazette" see the ruin of all its fondly cherished hopes and malignant wishes that the *Liberal* Hospital might be a failure. We have only to say, that so long as the North London Hospital is conducted on the principles it now is—so long as its medical officers are as attentive, and the means of instruction as ample as they now are—the Institution shall have our decided and unqualified support. The following is a statement of patients admitted up to November 1st, 1835.

In-patients during the year	1156
Out-patients	1299
Casualties relieved	1064
Lying-in women attended at their own habitations	270
	3789
Patients who have died in the hospital during the year	90
In-patients on Books	123

And this without any of the means that other institutions have unworthily resorted to, to swell the numbers that have been relieved. The conductors of some of our larger hospitals will comprehend our meaning very readily. It is also very clear that the other hospitals must lower their fees, or their wards will be *speedily deserted by students.*

Some of the hospital *functionaries* think high prices essential to successful medical teaching, and consider low terms incompatible with it. This reasoning is advanced by those who ought to have been silent on the subject, whose deserted wards and lecture-rooms ought to have proved to them that high fees and ill-qualified teachers cannot attract students at present. Every one who knows the state of hospitals and schools of the metropolis, must be pretty considerably surprised that the functionaries of St. Thomas's and the Middlesex Hospitals and schools should advance such a doctrine —the very individuals who have the smallest classes and the fewest students of any hospital or school in the metropolis. It cannot be that they are jealous of the success of the junior and cheaper schools; it must be that their inordinate self-esteem and excessive vanity have urged them to such an antiquated conclusion.

We leave the advocates of high fees, incompetent teachers, and irregular hospital attendants, to the free enjoyment of their opinions, and to their unenvied position of slowly marching in the rear of their contemporaries.

LONDON MEDICAL SOCIETY.

Monday, January 25th, 1836.

DR. WHITING, PRESIDENT.

Small-Pox and Vaccination.

Dr. Leonard Stewart inquired whether any member of the Society had seen any cases of variola in patients who had been vaccinated. He had lately attended a child with small-pox; two of its brothers, who had been vaccinated, were at home at the time; he was asked if it would be safe for them to go to school, or whether they might afterwards fall ill of the disease; or if not, whether they might not carry the contagion to their schoolfellows. He answered that he thought, as far as regarded themselves, they were quite safe, but he thought it possible the infection might be carried.

Mr. Evans had seen forty or fifty cases in which variola had followed vaccination. One particular case he well remembered. He had attended a lady who had the disease very bad, and died. She had an infant at the breast at the time, and he was anxious to preserve its life. He vaccinated it: at the seventh day variola appeared and destroyed the vaccination.

Mr. Hooper inquired if any gentleman present had seen variola come on in patients who were vaccinated by themselves. He never had seen a case of small-pox in a patient he had vaccinated. He had seen many cases, but the patients had chiefly been vaccinated at public institutions.

Mr. Dendy thought there was no doubt that small-pox came on after vaccination; but then the vaccination must in those cases be imperfect. The case related by Mr. Evans sapped the very foundation of vaccination. He had tried experiments on the subject, and the result of his experience had been the following:—He found, that if he vaccinated three days before the first headach attending the commencement of variola came on, that disease is prevented. He had vaccinated in some cases after the commencement of the headach, when variola had been in the family, and he had always succeeded in very much modifying the disease. He thought in Mr. Evans' case there must have been some error in the diagnosis, it sometimes happening in these cases that the eruption is so modified that you can scarcely distinguish whether it be variola or varicella; for he felt convinced that when a perfect vaccine vesicle had formed, true variola could not supervene.

Mr. Diamond inquired if it were not possible for vaccination, in some cases, to be a mere local affection.

Mr. Clifton always adopted Mr. Brice's test in all cases, and was therefore always certain of producing a constitutional affection. He thought in those cases in which variola came on after vaccination, the vaccination had been merely local.

Mr. Eales had seen a case of a medical friend who had been vaccinated by his own father, and therefore likely to be done effectually, yet he died of small-pox. Mr. E. inquired if there were not cases recorded in which after vaccination variola came on and stopped vaccination, and that after the variola had ceased the vaccination again went on.

Mr. Clifton inquired the cause of spurious vesicles. He had now a case under him of a child six months old. He had vaccinated it, and the vesicle appeared on the third day, shewing an inflamed hard areola round the puncture; on the sixth the surface of the vesicle was abraded, and was very sore, and the areola was still more inflamed; on the present day the sore was considerably elevated, and there was a small slough in the middle of it: the child's health was good.

Mr. Dendy considered the cause of such

spurious vesicles was the insertion of the vaccine matter into the cellular tissue. He had seen two cases of variola coming on after vaccination, in which the patients died; one of them was vaccinated by Dr. Walker, and, however much he (Mr. D.) esteemed the character of that gentleman, he could not but consider that his mode of vaccinating was very slovenly—being a mere stab.

Mr. KINGDON was always cautious in giving an opinion in similar cases to that of Dr. Stewart—it was impossible to say how long infection might be carried by the clothes—he had certainly seen scarlatina contracted from clothes three months after they had been worn by the person affected.

Dr. WHITING thought it was asking too much for cow-pox, when it was stated to be a preventive of small-pox altogether—it was asking more for that than for small-pox itself, for small-pox might occur three times in the same person. He thought that the fact of small-pox coming on after vaccination, in a modified form, was a sufficient proof the vaccination had been effective. He thought many of those eruptions called chicken-pock, swine-pock, &c., were modified small-pox. There was an important question to ask. Is cow-pox as good a preventive for small-pox as small-pox itself? Dr. Walker had said that his experience was in favour of the cow-pox, and he (Dr. Whiting), from all that he had seen, always, of course, taking into consideration the relative number of persons affected with each disease, was convinced Dr. Walker was correct. Vaccination was undoubtedly a most valuable agent.

Mr. BRYANT thought that spurious vesicles, as in Mr. Clifton's case, arose from the local injury sustained by puncture. He wished to inquire into the cause of small imperfect vesicles which die off about the sixth day, and such as no vaccinator would be satisfied with. He had vaccinated his own daughter at least twenty times, and always had this imperfect eruption follow. He did not think the frequency of spurious vesicles accounted for by the puncture of the cellular tissue.

Mr. DENDY considered the cases of Mr. Bryant proved that there was want of susceptibility in the constitution for receiving the vaccine virus.

After some further discussion the Society adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, January 23, 1836.

F. HALE THOMSON, ESQ., IN THE CHAIR.

THE Society was occupied this evening in the discussion of a case which had been previously brought before the London Medical Society by Mr. Crisp. The patient, a young woman, had suffered remarkable obstruction to the circulation at four distinct points of the system—in each axillary artery, and each femoral—the left foot had become sphacelated, and was removed by the knife. The main vessels of the leg were not obliterated, but very much reduced *in calibre*. None of the vessels bled *per saltum*, but it was thought advisable as a matter of precaution to tie some of them. The girl had been subject to hysteria. The discussion at both was on the question of its being a mechanical obstruction, or a mere functional one. Of course opinions only could be given. We reserve our full report of the case till some more satisfactory conclusion can be arrived at.

MEDICO BOTANICAL SOCIETY.

Tuesday, January 26, 1836.

— JUDD, ESQ., IN THE CHAIR.

Formula of the Liquor Opii Sedativus—Important New Preparation of Cinchona Bark.

DR. SIGMOND, in making some valuable observations on the various kinds of cinchona bark, gave the following important information to the Society. In speaking of the sulphate of quinine as prepared by Messrs. Pelletier and Cavetou, Dr. S. remarked, that though those gentlemen had succeeded in preparing the sulphate of quinine in admirable perfection, they seem to have forgotten, that the bark itself contains a peculiar acid in conjunction with the quinine—yet they first separate the alkalic from the woody matter, and then add an acid to it. Now Mr. Battley, from extensive observation and experiment, had succeeded in procuring by the aid of distilled water alone, the virtues of several most valuable therapeutic agents. *The liq. opii sed. is prepared by means of distilled water alone, with a little spirit added to preserve its character.* It was not prepared as had been asserted, by acetic acid—the formula was exceedingly simple—and *Mr. Battley had promised him (Dr. S.) to forward his plan of procedure in order that it might be read before the Society.* Mr. Battley had succeeded in the same way in extracting the virtues of senna and rhubarb, and he now added the cinchona bark to the list. Mr. Battley had thus prepared the liquor cinchonæ—he took first two ounces of the cinchona bark sub-pulverized, which he macerated for 24 hours in ℔iss of distilled water, at the temperature of the laboratory; in about two hours the acid, which is naturally combined with the quinine, was perfectly developed; and it was proved by the addition of the nitrate of silver, to be the muriatic. The liquid was tested as to the presence of sulphuric acid, none was detected. The fluid had acquired the specific gravity of 10.07. The bark was then subjected

to a second maceration at a temperature slightly increased—the muriatic acid could scarcely be detected—and tincture of iodine proved no starch was present. The bark was a third time subjected to the process of maceration—no muriatic acid was present, but starch was detected. A cloudy liquor only remained after this. The result of all was the obtainment of a liquor possessing all the virtues of bark equal to quinine. After having obtained this liquor, by the process of evaporation in one of Wedgewood's saucers, at 120 deg., you add a small quantity of spirit to retain the virtues of the preparation—eight to ten drops is a sufficient dose. Dr. Sigmond begged of the medical men present to try the effects of this new preparation ; it was easy to make, and open to every one ; he trusted that it might be found equal, if not superior, to the sulphate of quinine.

Dr. Ryan, in lecturing on the medicinal qualities of bark—remarked, in conclusion, that he had found the liquor colchici effective, when both the tincture and wine had failed. He would give the liquor cinchona a fair and extensive trial.

CLINICAL LECTURE,

ON CASES OF ERYSIPELAS OF THE HEAD, RESULTING FROM SLIGHT WOUNDS OF THE SCALP.

By Mr. SAMUEL COOPER,

Delivered at the North London Hospital.

SESSION 1836.

Tendency of Wounds of the Scalp to produce Erysipelas. Period of the commencement of the Disease after the receipt of the Injury. Tendency of Erysipelas of the Head to produce Coma. Danger of the disease when combined with Delirium, Coma, and an Intermitting Pulse. Treatment by Bleeding, and without. Application of the Nitrate of Silver—Puncture. Frequency of Erysipelas terminating in Bronchitis. Benefit of Incisions in Phlegmonous Erysipelas.

Gentlemen—As the Hospital book contains three cases of erysipelas, two of which proved fatal, I will this morning invite your attention to the particulars of them. The two cases which had a fatal termination were examples of erysipelas arising from injuries of the scalp ; one was treated without bleeding, the other with it ; yet both had the same unfortunate termination, corroborating two common observations in this disease, that, 1st, erysipelas of the head is *ceteris paribus*, the most dangerous form of it.

2nd. That when erysipelas has once commenced, it cannot always be prevented from leading to the extinction of life, whether you employ active antiphlogistic treatment or not. The first case I have to notice is that of John Jobson, who was admitted on the last day of the last year. Six days before his admission he received a blow from a drunken man, which knocked his head against an iron railing ; he came to the hospital, and was seen by the House Surgeon, Mr. Morton. There was a small wound over the right parietal eminence, but the pericranium was not injured. The wound was dressed, and the man sent home with a caution to return if rigor or any other bad symptom should arise. He came to the hospital three or four times, and the wound was dressed. He had some aperient medicine. On the 30th of Dec. there was a slight elastic tumour on the site of the original wound, which was opened, and some coagulated blood squeezed out.

On the 31st, the day of his admission, the report states, that he had rigors last night, succeeded by heat and pain in the head, especially about the wound, which was very tender. Tongue white and tremulous. Pulse 120, and of moderate strength. I saw him soon after his admission, and ordered him to be bled to ℥ xvj, but as this quantity did not affect his pulse ℥ xxiv more were abstracted, and a purgative of calomel and jalap administered, which acted on the bowels freely. His pulse came down to 96.

On the 1st of January he had a poultice applied to his head—there was some puffiness of the wound of the scalp a little to the left of it. Two incisions were made into the scalp and about ℥ viij of blood allowed to escape. He took a saline mixture containing tartar emetic, and sulphate of magnesia, until nausea and sickness were produced. The next day, the 2nd, some erysipelatous inflammation appeared about the wound of the head, and quickly extended down to the forehead. Tongue getting everted and dry—great tenderness of the scalp. On the 3rd, the greater part of the forehead was swollen, red, and tense, and the whole scalp in the same state. A saturated solution of the nitrate of silver was freely daubed around and over the margins of the inflamed part. A saline was given every two hours. Pulse 120, but not so strong as before, indeed it was rather feeble than otherwise. Tongue still more coated and more dry. Delirium during the greater part of the night.

On the 4th, the report states that he has been very delirious at night, but slept from 3 till 7 in the morning, and also during the day. Pulse quick, but feeble, and very intermittent. Had brandy and water occasionally, which relieved him—a purgative was also given, as his bowels were confined. On the 5th the pulse had got up in strength, and did not intermit so frequently as before. He was quite rational—he slept only from 3 till 7, and was delirious during the early part of the night. Two grains of the sulphate of

quinine were ordered every six hours. As his bowels were not opened by the medicine given yesterday the dose was repeated, and an enema given which produced several motions. On the 6th, tongue very thickly coated, but not so brown or dry ; there are also several fissures in the crust. Pulse varying from 110 to 120, intermitting once in 10 beats. Great thirst. Bowels not moved. The face a good deal swollen, and as the erysipelas has passed, the caustic line on the forehead, the caustic was then again applied along the upper lip, the tip of the nose and ear. Palpebræ so much swollen he cannot see. A cough has come on.

On the 7th, he appeared rather worse; there was more coma; bowels open once, during the night; ordered beef tea. Dr. Elliotson saw him this morning, and considered the difficulty of speech and deglutition resulted from cerebral congestion, and recommended more blood to be taken, and the application of a blister to the back of the patient's neck. The bleeding reduced the strength of the pulse, but not its frequency. Two grains of calomel were given every second hour. Some punctures were made in the injured parts, and a quantity of serous blood was evacuated. On the 8th, the pulse was soft and 120; he appeared more rational. The erysipelas of the face had faded on the 9th, but he gradually got weaker, and sunk about the middle of the day. The erysipelas had not passed the second line of caustic drawn on the 6th of January. On the *post mortem* examination, the scalp was found rather œdematous behind; a small quantity of pus had formed near the vertex. There was pus also in the palpebræ. There was some effusion into the cranium, also some straw-coloured lymph under the arachnoid. The brain and lungs were highly congested, and there was a quantity of semi-purulent mucus in the bronchi, the membranes of which was injected more than natural.

Now, gentlemen, this case illustrates several interesting circumstances respecting erysipelas of the head. It illustrates :

1st. The great tendency of the scalp when wounded, to be attacked with erysipelas, which then extends to the face, and often down the neck to the trunk.

2nd. The general disposition of this affection of the scalp to assume a character of phlegmonous erysipelas, or erysipelas combined with considerable effusion of fluid in the cellular tissue.

3rd. The usual period of its commencement, which is between the sixth and tenth day after the receipt of the wound or contusion of the head.

4th. The circumstance of the beginning of erysipelas being commonly preceded by shivering.

5th. The tendency of erysipelas of the head to produce coma.

6th. Also to bring on sometimes a difficulty of speech and deglutition. These effects and likewise the coma are ascribable to congestion within the head, and perhaps still more frequently to the actual effusion of fluid in the cavities, or upon the surface of the brain, or at the base of the skull. The *post mortem* appearances, as in Jobson's case, seem to confirm this view, which is generally, I believe, adopted.

7th. The great danger of erysipelas of the head, when combined at an early period of it, either with delirium or coma, and an intermitting pulse. While the pulse is 120 and regular, and the intellects clear, strong hopes of a recovery may always be entertained.

8th. Though bleeding was freely practised in an early stage of the disorder, and calomel and other antiphlogistic remedies prescribed, these means proved inadequate to check the disorder.

9th. The case also exemplifies the uncertainty of the effect of bleeding when the disease is advanced, the pulse frequent, but rather weak, and symptoms of cerebral congestion or effusion are present. Indeed, it was a delicate point to determine, whether the bleeding on the 7th of January would be useful or not. At first, I conceived it might be safer to order a blister to the nape of the neck, and small doses of calomel five or six times a-day, with the view of relieving the brain, and promoting the absorption of any fluid effused in the head; but as my friend, Dr. Elliotson, entertained a hope, that the pulse would increase in strength after venesection, we took away twelve ounces of blood; but the pulse afterwards increased in frequency, and became more feeble.

10th. The case proves likewise that erysipelas of the head, treated with the external application of the nitrate of silver, incisions through the scalp, and punctures of the face, cannot always be prevented from having a fatal termination.

11th. The case teaches us, not to estimate the prospects of recovery altogether by appearances of the cutaneous affection: the redness may almost fade away; yet the cerebral affection and state of the pulse may at the same time become more discouraging, and leave little or no hope.

12th. The combination of erysipelas with bronchitis, which is apt to begin when the cutaneous inflammation is on the decline, or has even stopped.

13th. The particulars of this patient suggest to me one question, namely, whether he might not have been in the land of the living, had he been copiously bled, directly after he received the injury of the scalp. The experience which I have had, makes me an advocate for immediate and copious bleeding in most cases of contusions and contused wounds of the head. If this measure be neglected, and the patient is of in-

temperate habits, we frequently find that after a few days, rigors come on, and the patient is either attacked by erysipelas, or inflammation and suppuration of the membranes of the brain ensue.

14th. The very buffy state of the blood in erysipelas.

The next case, gentlemen, is that of Hannah Seaton, aged 55, who was admitted January 6th. The report states that she came to the hospital first on account of a trifling wound of the scalp, situated near this occipital protuberance. This was on the 26th of December. As the wound did not penetrate the pericranium, and was of a very slight character, some strips of adhesive plaister were applied, and the woman made an out-patient. Some aperient medicines were given, and she was directed to be careful of herself. She came to the hospital several times, and her head was dressed. Her general health was good.

On the evening of the 5th of January she was seized with rigor succeeded by pyrexia. She came into the hospital on the 6th, when she presented all the appearances of erysipelas of the face. The scalp was swollen, soft, and tender. The face red, swollen, and much deformed. The palpebræ were tumefied. Pulse 84. She had great thirst, and suffered from great uneasiness. The inflamed parts were brushed over with a saturated solution of nitrate of silver.

On the 7th the pulse was 96—the face more tumid—tongue dry and furred. Passed a sleepless night, but had no delirium. Bowels opened by medicine. Cloths dipped in water were applied to the face. The erysipelas on the 8th had passed the caustic in front and extended down upon the chest. The erythematous border was encircled again by the caustic. Tongue dry and brown. Great thirst, no tenderness of epigastrium on pressure. Bowels open once. A purgative dose to be given to-morrow morning. On the 9th the report states the bowels have been once opened by the powder; the face is much the same, and she is not able to see. The tongue dry and furred; pulse 120, feeble. Twelve grains of Dover's powder to be given at bed-time. A pint of beef tea daily.

10th. Has passed a restless night. Tongue much furred; teeth covered with sordes; appears much weaker; bowels open twice; the erysipelas has faded much; palpebræ quite flaccid; she lies at full length on her back; picks the bed clothes; extremities cold; breath very cool; pulse 134—8; almost imperceptible. Port wine ℥iv in a day.

Towards evening she became much worse; a large hard swelling has appeared under the chin, and in front of the larynx, accompanied with difficulty of speech, and deglutition. Pulse very feeble; intellects clear, but speech indistinct. A glass of wine every hour. She gradually got weaker and colder, and died about 8 P. M.

On examination after death, the scalp was found to be very œdematous at its posterior part; some serous effusion within the cranium and beneath the membranes of the brain, but no other morbid appearances. Erysipelas not extended beyond the last line. This case also exemplifies—1st, the beginning of the disorder within the usual period, or the tenth day after the receipt of the wound.

2nd. Its commencement with rigor followed by pyrexia.

3rd. The vast disfigurement of the countenance by phlegmonous erysipelas. The œdematous distension of the cellular tissue of the eye-lids; the closed, watery state of the eyes; the prodigious swelling of the nose; the dryness of the nostrils; the puffy condition of the lips; the difficulty of opening the mouth completely; and the profuse flow of saliva.

4th. Both these cases show the inability of nitrate of silver, always to limit the extension of erysipelas, though it is frequently successful on a second line being made with it.

5th. The failure of tartarized antimony, calomel, purgatives, and compound powder of ipecacuanha, assisted by nitrate of silver and cold lotions.

6th. The tendency of the disease to a fatal termination, though the patient had little or no delirium in the day time throughout the whole course of her illness.

7th. The unfavourable inference to be drawn from the pulse, from day to day, regularly increasing in frequency.

8th. The possibility of death without any traces of any serious mischief on internal organs, being detected in the *post mortem* examination. There is one more case of phlegmonous erysipelas of the leg, arising from fever, which I will allude to: it is that of John Whitton, aged twenty, who was admitted October 31st. The Report states that he is a smith; that nine months since, a piece of wood struck his right shin and abraded the skin, which was followed by an unhealthy painful sore, attended with a discharge of a thin ichorous character; nine days ago he was seized with rigors, followed by urgent pyrexia, restlessness at night, and occasional delirium. On the second day his leg became very much swollen, so as to render the skin tense and shining, of a deep red colour, and accompanied by a large bullæ. He used a cold lotion with benefit, and some medicine, and came to the hospital on the 31st of October. Pulse 96, and feeble. Tongue coated with a dirty thick fur, moist. Rests pretty well at night. Bowels opened by medicine, two days since. Appetite bad. The limb is very much swollen, but flabby, of a dark red colour, with a small core over the middle of the skin, and bullæ over the calf. Cuticle is desquamating; says he has no

pain or uneasiness, except when he hangs the leg.

On the 2nd of November, a pretty large incision was made over the calf of the leg, but no pus escaped. A poultice and fomentation were applied to the leg. The case went on very well, and the man went out cured on the 21st of December.

This case exemplifies the use of a free incision in diminishing the tension of the limb, though no pus may be discharged, the benefit derived from the bleeding, and the copious evacuation of serous fluid from the cellular tissue.

Foreign Hospital Reports.

Contraction of the Glottis and Pharynx—Aphonia—Difficult Deglutition—Treatment by the Deuto-Chloruret of Mercury—Cure.

A COUNTRY woman, aged thirty, of good general health, although she had for some time lost all the superior incisors, was admitted under the care of M. Sanson.

About two years before, she felt a difficulty in swallowing aliments, which was soon followed by dyspnœa, sonorous respiration, and with complete aphonia. The finger passed into the mouth could not reach the affected part, but a gum elastic probang encountered at the superior part of the larynx a considerable stricture of the pharynx. The contraction was overcome with difficulty, though without pain, and in a short time the patient declared she could swallow with much less difficulty. But the aphonia and difficulty of respiration continued to such a degree that M. Sanson desired the necessary instruments for tracheotomy to be kept in readiness. The exploration had clearly indicated a stricture of the pharynx; but as this could not be made in the larynx it was reasonable to conjecture from the symptoms that a similar disease existed about the glottis.

The most searching questions on the former habits of the patient, as well as the most minute examination of the different regions, did not discover any of these causes called specific.

Leeches were applied to the throat, and a seton was inserted in the nape of the neck. These remedies were persevered in during the space of a month, and had no apparent result except suspending the progress of the enlargement of the glottis, which seemed to become stationary. M. Sanson then resolved to try an anti-syphilitic treatment by pills of deuto-chloruret of mercury, and sudorific ptisans. Three days afterwards, the respiration was no longer wheezing, and the patient had recovered her voice. She left the hospital after six weeks' treatment, with only a slight difficulty of swallowing.

Gangrene of the Penis, from excess in Coition and Masturbation, in a youth aged sixteen.

A youth aged sixteen, with a fine white skin and red hair, was admitted under the care of M. Sanson.

Five days previously, he had connection for the first time with a girl of the town, and passed the night in furious masturbation; the next day the size of the prepuce was such, that without having phymosis, the glans remained covered during erection, became inflamed, and gave rise to a bastard blennorrhœa with balanitis, (inflammation of the glans penis).

Two days after he was received into the physicians' ward, where he remained three days, and was then transferred to the surgeon.

He presented the following symptoms:—All the penis shewed unequivocal symptoms of violent inflammation; it was red and swelled from the base to the prepuce; and a thick and copious muco-purulent matter flowed from the orifice. On the back of the penis there was a large livid spot, of a slate colour, of an oval form, and an inch in diameter. A deep incision was made on this part to give an issue to the putrid matter. Nevertheless, the gangrene extended the next day to all the anterior part of the penis, which appeared sphacelated.

Under the influence, however, of emollient and antiphlogistic treatment, the inflammation subsided, the eschars fell off, and the entire extent of the lost of substance could then be seen. The integuments, a great part of the substance of the glans, and the anterior extremity of the urethra were destroyed.

By a proper treatment, the wounds cicatrized in the space of two months, without the necessity of any anti-syphilitic remedies, the affection appearing to be entirely owing to mechanical injury.

Acute Metritis, simulating Saturnine Colic—Depletion—Cure.

In the same ward with the former patient is another woman, 26 years of age, habitually occupied in painting childrens' toys, and daily making use of white lead. She has been once attacked with colic and paralysis of the wrists. When she came to the hospital she had suffered for eight or ten days from severe pain in the hypogastric region, and constipation. These symptoms were accompanied by intense febrile action; the pulsations 104. The acceleration of the pulse seemed to render the existence of colic doubtful. The pain being fixed in the hypogastrium, and the patient also complaining of retention of menstruation, the genital organs were examined, and the neck of the uterus was found extremely sensible. Pressure on the hypogastrium increased the pains. She was bled from the arm: recourse

was had to emollient lavements, and fomentations on the lower part of the abdomen. From the intensity of the pain opiate pills were also prescribed, and under the influence of this treatment the metritis was completely arrested.

If in this case there had been only a superficial examination, the true nature of the disease might have been mistaken.

SKETCHES OF THE MEDICAL PROFESSION IN PARIS.

NO. II.—M. CHOMEL.

Augustus Francis Chomel was born at Paris, August 13, 1788. He is physician to the Hospital of La Charité, and Clinical Professor to the Faculty of Medicine at Paris. He was nominated to that place in 1827, after the death of Laennec, whom he has thus replaced. Although he was placed in that situation by an *ordonnance* of M. de Frayssinous, we must agree that in him the school of medicine has made a useful acquisition. The inheritance of Laennec has not fallen into unworthy hands. I doubt much whether our professor, though still young, will ever produce works worthy of being compared with the *Treatise on Mediate Auscultation;* but if he should not attain to that European reputation, which is the lot of only a few privileged beings, he will nevertheless be cited as an able practitioner, and a distinguished professor.

I shall not enter into particular details respecting the different productions he has sent forth; as they offer nothing very prominent or remarkable. They are not very numerous; and I shall content myself with enumerating the titles. 1. *Essay on Rheumatism;* which constituted his thesis, in 1813. 2. *Elements of General Pathology,* 1817, and 1824. 3. A pamphlet in octavo, on *Fevers and Pestilential Diseases.* 4. Various articles in the *Dictionnaire de Medecine,* to which he is one of the best contributors. These different works, I repeat, do not possess sufficient interest to become the subject of an analysis here. We should indeed be but very imperfectly acquainted with M. Chomel, if we were to content ourselves with reading him. It is necessary, in order to form a less uncertain judgment, to visit the wards and amphitheatre of La Charité.

M. Chomel, as a practitioner, has not the ability of a Corvisart, a Dubois, or a Broussais; but endowed with much sagacity, patience, and a spirit of observation long familiarized with the practical study of diseases, he exercises his profession with prudence and discrimination. If his clinique is very much followed, it is not alone because it is almost the only one that the students can enjoy in Paris.* That circumstance may have some influence; but I doubt not his real talent, as a professor, is the principal cause. Full of laudable zeal for the instruction of the pupils, and anxious to fulfil his duties well, he neglects nothing which can tend to the accomplishment of this double purpose. The students are much pleased with his solid and judicious instructions, the clearness of his lectures, and the useful precepts which, with great simplicity of language, he communicates. Weighing well the obligations of a clinical professor, he takes care not to run (like one of his colleagues) from bed to bed, with disorderly precipitation, observing only for himself. He does not forget that patience is a merit of the first order, in any instructor whatever. He questions the patients at great length, and explores with care, and with the assistance of all the means possible, the state of their different organs. As the investigation proceeds, he calls attention to the most interesting phenomena; and does not establish his diagnosis, until he has already, as it were, forced the pupil to draw the same conclusions for himself.

M. Chomel brings the same care and the same patience to his lectures. He endeavours to avoid leaving in the minds of his auditors that indecision and those doubts which are always painful. He develops with perspicuity the motives which have led him to think and to act in such and such a manner, according to the cases which present themselves. He endeavours to foresee the probable results of the disease, and of the therapeutic agents employed. He but rarely theorizes; and he proves in that way that he has a just idea of the nature of clinical instruction. Influenced, however, sometimes by the spirit of controversy which has long pervaded medical literature, he endeavours to uphold, in his lectures, certain doctrines to which he is attached, and of which traces are found in his books. In these cases, which, however, are happily rare, we cannot award to him as a logician the praises which he merits as a practitioner.

This last consideration suggests to me a remark which, though applicable directly to M. Chomel, will serve to give a sufficiently exact idea of the spirit which animates many French practitioners, who have not been willing to submit to the new doctrines of Broussais; and of these a great number may be reckoned among hospital physicians and the professors in the university. M. Chomel appears differently, when viewed under different aspects. Follow him in his practice, and you will find him straight-

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* It is true there is the clinic of M. Recamier; but this professor is not frequently enough at his post to enable the pupils, with the best disposition in the world, to hear the lectures he does not deliver, and attend the visits he does not make.

forward and correct; a praiseworthy practitioner, equally skilful in detecting maladies and in treating them. Guided by prudence and an enlightened experience, he modifies his practice according to circumstances, and adopts all the methods which are of established utility. With all the good practitioners of our time, he has adopted part of the principles of the school of M. Broussais; and has recourse to antiphlogistic treatment more frequently than was done fifteen years ago. Read his books, and the scene changes. That confidence, that precision which he evinces in the exercise of his art, abandons him, in a great measure, in his writings. When he begins to reason, he falls into a vagueness and disorder of ideas easy to recognize. It is easy to see that his theories are only imperfectly established in his mind; hence the doubts, the continual hesitations, and all the inconveniences of a false position.

Many physicians in the present day resemble M. Chomel in this respect; and the fact is easily explained. The active promulgation of the physiological code has overturned and destroyed everything. The ancient edifice of science, such as the classics have bequeathed it to us, has been assailed on all sides, in theory as well as in practice. A great number of physicians have witnessed that innovation with enthusiasm, and have adopted it without restriction. These are principally young men, who have newly entered on their career, and have openly declared themselves the champions and propagators of the new doctrines. But more experienced physicians have not yielded so easily to the excitement. They have been astounded, but not converted; because the voice of their experience has in general been louder than of fine books upon *Irritation*. They very soon perceived, likewise (I speak of those who have a little philosophy in their heads), that the new doctrine has its weak sides, even with respect to theory. They have, therefore, remained in a vacillating state between the ancients and moderns, seeing good and evil equally in both. Many, and these form the wisest class, have entrenched themselves in their practice, and have sought to cure diseases by all the means in their power, from whatever quarter they may come. Others, anxious to oppose a dyke to this invading torrent, and indignant at the contempt shewn for the experience of their predecessors as well as their own, have embraced the plan of entering into controversy. But forced by their own good sense to modify their practice, and one portion at least of their theories, they can wage but a timid warfare, their adversaries wresting from them, in spite of themselves, concessions of which they boast. Obliged to have recourse to the ancients on some points, they do not well understand what it is they retain. They have the great disadvantage of being always on the defensive; and their triumphant opponents represent them, with some reason, with having no doctrine at all. In fact they have not, nor can they have any; because that which reigns at present, having sprung up unexpectedly and being the offspring of the present age, has not yet fulfilled all its periods. They have nothing to oppose but a *vis inertiæ*, which resists but does not establish anything. A philosophic distrust, and an instinctive good sense, teach them that the infallibility of the reformers is suspicious; but destitute of time and sufficient materials they can offer only an insufficient opposition. The time is not far distant, perhaps, when this physiological doctrine, now reputed so vast and admirable, but in reality so narrow and mean, will be replaced by some other, better adapted to the scientific knowledge of the present day. Symptoms of reaction appear on all hands; but it has not yet taken place.

M. Chomel is one of those physicians of whom I have just spoken.

Often a "physiologist" in practice, he fights for fevers with the weapon which time has consecrated. A partisan of every practical innovation, of which his own experience has proved the utility, he nevertheless lays himself open to the accusation of being a man of gothic prejudices, and superannuated principles:—a disciple of medical mystification. Many people subscribe with pleasure to his knowledge and merit, but ingenuously deplore that so fine a talent should be lost for ever. I augur differently of M. Chomel. I believe he is destined to sustain the credit of our school, which, unhappily, sins on too many sides. I think he would have gained more had he written less, and had he remitted the defence of the cause he has embraced to more able hands; but the confidence of his numerous pupils, and his indisputable success in a difficult career, ought to console him under the criticisms which his books have provoked.

I am the more anxious to express this favourable judgment, because M. Chomel, it is said, professes political and religious principles which no long time ago, by some singular caprice, were a better recommendation to a professor's chair, than scientific attainments. Those who are aware of that fact, might, with great injustice, confound M. Chomel with some others of his colleagues, whom we can only praise on the score of their piety and correct sentiments. I also wish, by making this distinction, to prove to my readers that I seek truth before everything else; and that I scrupulously proclaim it whenever I believe I have met with it.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

ROYAL THERAPEUTICAL

London Medical and Surgical Journal.

No. 2. SATURDAY, FEBRUARY 6. Vol. I.—(1836).

ESSAY

UPON SOME POINTS OF THE

HISTORY OF CATARACT;

Thesis presented to, and sustained before, the Academy of Medicine of Paris.

By THEODORE MAUNOIR,

OF GENEVA,

Doctor of Surgery; Member of the Medical Observation Society.

TRANSLATED

By ALEXANDER THOMSON, M.B.

Of St. John's College, Cambridge.

"Observer la nature, rassembler beaucoup de faits pendre leur ensemble pour principes ..... Qui sommes nous pour nous detourner de cette voie."—Bichat, *Œuvres Chirurg. de Desault.*

2nd. *Case of Non-success.*—If, now, it be examined what have been the symptoms experienced by the patients in whom the operation has had no success, whether the two eyes have been lost, or one has been lost and the other saved; or, finally, the extraction having been practised but on one side has been so without success, the following are the results arrived at:—

In 61 persons affected with cataract, who have been placed in the circumstances just indicated, fourteen have presented at a variable period, and during a variable time, after the operation, a rather marked febrile movement, particularly in the night; eleven have felt those pains of the teeth, of which mention has already been made, always on the side of the most diseased eye; in four of these eleven subjects the teeth were healthy, in a fifth the pain was seated in the gums; there was not remaining a single tooth on the affected side; in other three, the teeth that suffered were carious. In two patients there supervened some vomitings; in a third, only some nausea. Some have had a little diarrhœa.

A very old woman, of whom mention will be made hereafter, was attacked with erysipelas of the face, which brought on death in less than 48 hours. As to the symptoms more immediately relating to the operation, namely, the pain of the eyes and of the head, it has been seen that they have existed to a certain degree even in the individuals who have recovered the sight. In those who have not had that happiness, these accidents have generally been more considerable in intensity and duration; that is almost the only difference, and it would be erroneous to believe that it is always thus, and that the slightness of the pain, or even its total absence, are sure guarantees of a definitive success.

Indeed, in the 61 patients of whom we are treating, there are ten of them in whom the sight has been destroyed, either by opacity of the cornea, or by formation of a membranous cataract, and obliteration of the pupil, almost without any pain on the affected side. In one of them there was at once obliteration of the pupil of one side, capsular cataract of the other, and yet scarcely had the patient felt from time to time some slight prickings of the eyes and a little heaviness of the head during the first days. In thirteen others, who equally lost the two eyes, there was pain only on one side, and not even the slightest in the second eye: the cornea became opaque in one of them—there were two capsular cataracts in the others. The circumstances passed on in an analogous manner in the last six.

It has occurred rather frequently, as in the most fortunate cases, to find the pain disappear on the second or third day, to re-appear at a later period. Sometimes, also, it is not until several days after the operation that it has appeared for the first time, and that it has been speedily accompanied by the loss of the eye, at the moment in which it appeared altogether out of danger.

The most remarkable case of this kind has been that of a workman of the country, aged about 56 years, operated on both sides. He had experienced some slight pains in the eye, in the forehead, and on the side of the nose—the whole on the right side; there was a little redness of the conjunctiva; the patient saw, but not very distinctly. From the first day, the left eye had not been the seat of the slightest pain; the sight of this

side excellent; there was no redness of it; the patient distinguished the hands of a watch. On the evening of the 11th day, in making some efforts to go to stool, he was attacked with vivid prickings in this eye. During the night these prickings increased much; there are very strong pulsations, accompanied with an intense pain of the forehead on the left side, and of the left lobe of the nose; there is numbness (engourdissement) in the corresponding teeth, the conjunctiva becomes swollen, the superior eyelid can no longer be opened, and forms a prominence of the size of a walnut; a sero-purulent liquid flows out from this eye, which, at the end of some days, is destroyed by suppuration.

The woman, who sunk under an erysipelas of the face, was aged 80 years, and had been operated on on both sides; from that moment she did not cease to experience beatings in the left eye, and in the forehead of the same side. On the fifth day the cornea was already opaque; the conjunctiva then commenced to be swollen. On the tenth day, the eye, or rather the upper eyelid, formed a prominence of the bulk of a large walnut; the skin was rosy; there were seen passing out between the eyelids some granulations of a brilliant rosy hue; in the place of the cornea existed a patch of a dead white; there was a sero-purulent discharge. Up to this period there had been scarcely any pain in the right side, the conjunctiva was scarcely rosy, and yet the pupil was already occupied by an opaque body. On the fifth day, in the morning, the patient is, since last evening, in the following state. The right side of the face is swollen, hard to the touch, of a rather livid rosy hue; there are some phlyctenæ near the mouth; the skin is hot, dry; the pulse at 120, regular, rather strong; the respiration at 36, a little noisy; the lethargy is marked; the patient mutters some unintelligible words, and can scarcely shew her tongue, which is yellowish, dry, and chapped. She expired in the evening at nine o'clock.

Autopsy, on the 31st of May, 1833, thirty-seven hours after Death.—Face.—The redness of the erysipelas had disappeared: there was no longer any tumefaction; the only traces of the disease still remaining were some brown, dried crusts, and a great friability of the epiderm, which was detached on the slightest touch, particularly at the right upper eyelid. The conjunctivæ were of a very pale rosy hue: there was no longer but a slight swelling of that of the left side. The two eyes were extracted from the orbits; and the muscles, the fat surrounding them, presented no appearance of lesion. The right eye had its ordinary bulk; the cornea was clear—there was perceived behind it a yellowish plate, occupying the field of the pupil; this patch was a very thin false membrane, very soft, resembling that found upon the wound of a blister, and adherent to all the periphery of the small circumference of the iris; after having detached it, it was easy to see that a second opaque pellicle, perfectly distinct from the first, existed behind it—this was the anterior lamina of the crystalloid: moreover, all the other parts of the eye, the iris, the vitreous body, the retina, were in the normal state.

The left eye was evidently increased in bulk: a yellow, uneven, soft plate, occupied the place of the cornea, and was prolonged into the interior of the eye; there were, with difficulty, recognised some blackish fragments belonging to the iris; the vitreous body was replaced by a yellowish, homogeneous, opaque substance, having the consistence of soft cheese—it was evidently semi-concrete pus. This mass was surrounded by a brownish, thin, slightly downy membrane, formed by the re-union of the choroid and of the retina, which could not be distinguished one from the other*.

This case presents a new example of the formation of a capsular cataract, and even

* *Cranium.*—The great cavity of the arachnoid contained about two tea-spoonsful of reddish-brown serum: a rather abundant infiltration of a liquid altogether similar, existed between the arachnoid and the brain: in no point was there perceptible the least trace of pus, or of thickening of the meninges; the large veins of the pia mater were moderately injected, and were easily removable without destroying the cortical substance. This last, as well as the white substance, had everywhere its natural colour and consistence: the central white parts, and particularly the three-pillared cerebral vaults, must be excepted from this; the two laminæ constituting its anterior pillar were rather softened, and remained applied upon the corpora striata when the corpus callosum was sought to be removed; their consistence was not, however, altogether pulpy. The lateral ventricles contained one or two tea-spoonsful of clear serum. The plexus choroides, of a pale rosy hue, enclosed several transparent vesicles of the magnitude of a small pea, and of which the parietes were covered over with excessively fine vascular arborizations. The cerebellum, the tuber annulare, presented no alteration.

The remainder of the autopsy was made in a detailed manner. I think it useless to relate the details here; I will say only that there was in the lungs only a slight general emphysema; that the heart and its orifices presented no lesion; that the mucous membrane of the stomach was reduced to about the half of its ordinary thickness, but without marked softening; that in the small and large intestines there was but a slight degree of softening at the level of the ascending colon.

of a pseudo-membrane, without there having been appreciable pain, either of the eye or of the head, on the affected side.

The fact of the existence of a false membrane everywhere adherent to the pupillary edge of the iris, and existing nowhere else, appears to me likewise rather interesting in itself: it is a point of pathological anatomy I believe as yet little studied, although something analogous is found in a memoir of M. Boudant, preserved at the conclusion of the account of the labours of the Anatomical Society during the year 1829.

Nothing more rare, whatever may have been said to the contrary, than to see an adult sink under an erysipelas of the face; at least when that affection appears in a subject in other respects healthy, and not debilitated by a preceding disease; a certain degree of lethargy, and even of delirium, is however rather frequent in this exanthem, and that is probably what in these cases leads so many medical men to fear the development of meningitis. Assuredly, it is when death supervenes in the midst of these cerebral symptoms, that the confirmation of those fears ought to be found, and yet it may have been seen that the membranes of the brain were in a state of perfect integrity.

In calling to mind what has been said in reference to the accidents that occur after the operation for cataract, it may be concluded, I think, that reliance must not slightly be placed on the absence even of pains, for affirming that the operation will succeed, any more than it ought to be despaired of success when these pains exist, particularly if they last only twelve or twenty-four hours. What may be said, in general, is that they are stronger and more continuous in the cases in which the eye is about to be lost, than in the contrary cases; but how trust to such differences, when there is question of forming a prognosis, or of opposing those accidents that may annihilate the sight? The pains have been, in truth, twice as frequent in the cases of non-success as in the others; but the variable, and frequently very tardy period of their apparition, take away much value from that symptom, since it annouces the evil only when it is already irreparable. Definitively, it is on the examination of the eye itself, made with great precautions, that confidence must be placed, if it be desired to seize at their onset the different lesions that are to be feared; happy did the art possess means of well demonstrated efficacy for guarding against, or for remedying them.

The treatment employed against the accidents consecutive upon the operation, is in general limited to mustard foot-baths, repeated several times a day: very rarely has recourse been had to local or general bloodlettings, or to purgatives.

7. *Results.*—Before passing to a very important question, that of the prognosis, it is proper to make known the definitive results that have been obtained, in order to appreciate more easily the value of the different circumstances that may have been able to influence these results.

In occupying oneself with researches of this kind, it is necessary, according to the remark of Professor Roux, to distinguish what relates to the eyes from what relates to the individual; or, the chances are always more favourable to the latter than to the former; that is to say, that there are proportionally more persons operated on, who recover the sight, than eyes on which the operation succeeds.

The following is the relation, in this double point of view, of the cases of success to those of non-success.

One hundred and fifteen subjects have undergone the operation for cataract by extraction, either for one or for both eyes. Of these 115 patients, 73 have owed to the extraction the re-establishment of the sight, which gives 73-115ths, or a little more than 5 in 8, as the ratio of the individuals on whom the operation has succeeded, to the total of those who have been operated on*.

Now, in only considering the eyes, we find 179 of them on which the extraction has been practised. Of these 179 operations, 97 have been followed by success; that is to say, a little less than 5 to 9, for the ratio of the cases of success, to the total number of operations†. The following are, on the other hand, the different species of lesions that have annihilated the sight in the cases of non-success:—

1st. Fourteen eyes destroyed by suppuration.

In the cases of this kind there is first manifested a very vivid inflammation of the ocular and palpebral conjunctiva. That membrane swells considerably, and forms a large longitudinal eminence of a vivid rosy hue, that pushes forwards the upper eyelid, and causes it to form a prominence, sometimes of the size of a walnut, or even of a small apple—due also in part to an œdematous infiltration; it secretes first a purulent serum, then subsequently a true pus; the interior of the eye is soon attacked by the suppuration, and finishes by being emptied. It is after accidents of this kind that the organ is seen to be reduced to a more or less irregular tubercle, and it is then possible to correct the deformity by means of an enamel eye, of which the aspect and the movements sometimes imitate with great perfection those of the true eye.

With this inflammatory swelling of the

* Difference between 73-115ths and 5-8ths equals 1-102nd nearly.

† Difference between 97-79ths and 5-9ths equals 1-73rd nearly.

conjunctiva there must not be confounded another lesion, rather frequent, which has some relation with the first, but which is far less serious: I would speak of a sort of small, livid red, very shining ecchymosis, of a semi-transparent, tuberculate aspect, and which is sometimes seen formed from one day to another. It by no means suppurates, and exists, I believe, more frequently at the inferior than at the superior eyelid. Although it be not rare to see it coincident with the formation of a capsular cataract, or with a total or partial opacity of the cornea, I have seen it developed in eyes which have not been lost.

2nd. Nineteen cases of opacity of the cornea sufficiently complete to prevent any thing being seen behind it.

3rd. Nine cases of incomplete opacity of the cornea, permitting of being seen behind it a white spot in the field of the pupil.

4th. Fifteen cases of very evident membranous cataracts, without opacity of the cornea, and without my finding indicated in my notes a notable deformity, or a displacement of the pupil. In three or four cases, these cataracts presented a most evident rosy tint.

5th. In six cases, there was an opaque body in the field of the pupil, with very marked displacement, or deformity of that aperture.

6th. Once only, complete occlusion of the pupil.

7th. There remain, finally, 18 cases, incapable of entering into the preceding divisions. One was that of a man, in whom the sight was completely annihilated, though the two pupils were very black. A second, who presented, only in a very limited point of the pupil, opacity, and yet did not see. Two cases, very curious, in which, during the time occupied in the cure of the wound, a body of an irregular form, of an opaline white, resembling sufficiently a cataract deformed during the operation, came to be interposed between the lips of the wound of the cornea; it adhered strongly to them, although it was sufficiently voluminous to raise the flap in a remarkable manner; in one of the two patients, this body seemed to come out more and more every day, and after having, during a long time, raised the flap, it finished by being altogether out of the eye, but remained solidly implanted upon the exterior of the cicatrix; it was opaline, hard to the touch, insensible. In these two patients the extraction had been complete; no opaque portion had remained after the operation in the field of the pupil. Can that be, as it were, a species of abnormal vegetation, of deviation from the fibrous tissue of the cicatrix? However that may be, the sight was destroyed in one of these patients by a capsular cataract, which was formed at the same time with this sort of excrescence; in the second, the pupil appeared a little more clear, but the vision was but very imperfectly exercised.

Several of the other patients were among those who have been ranged under the head of *demi-success*, either from their having quitted the hospital, preserving too much sensibility of the eye to allow of their being examined carefully, or from their offering a partial opacity of the cornea or of the pupil. Finally, in some cases the lesion has not been sufficiently described to enable it to be indicated here; this omission has particularly occurred relatively to the iris. I find but in three or four cases the indication of a change of colour, and of a duller tint than previously presented by that membrane; but I will by no means affirm that the cases of iritis have not been more frequent.

In taking a summary of these different alterations, it is manifest that the membranous cataracts existed in an evident manner in more than a third of the cases of non-success. It seems at the first glance that that is in direct opposition with what has been said above of the rareness of that species of cataract, but the contradiction is only apparent. Indeed, I meant to speak of the cataract in general, and not of the patients quitting La Charité, after having undergone the operation without success. I doubt not but the cause of so many capsular cataracts—accidents, however, that are reparable—must be sought in the manner in which Professor Roux proceeds. Is it not evident, indeed, that by contenting oneself with a simple incision of the anterior crystalloid, that membrane may become opaque, since it remains in the eye, while the thing would not be possible, if it were, as recommended by Beer, cut into several fragments, and drawn, at least in part, out of the eye at the same time as the crystalline? These patients are then, as is manifest, in circumstances altogether special; not to take account thereof, and to conclude generally to the frequency of membranous cataract, would be as little logical as to say that the extraction is a fatal operation once in fourteen times, because in the forty-three individuals operated on in the spring of 1833, there are found three, who were in such morbid circumstances that they have sunk under it. However, the facts elsewhere related in reference to this question, appear to me unanswerable proofs.

CLINICAL LECTURES.

Delivered at the Jervis Street Hospital, Dublin.

By DR. CORRIGAN.

Bronchitis—Chronic Rheumatism treated with Hydriodate of Potass.

We have two cases of bronchitis in the female ward, which are worth comparing to-

gether, as affording examples of two varieties of this disease. One of these cases is the patient Dunne, who, for several days before admission, had been labouring under symptoms of mild fever; her pulse slightly quickened; skin a little hot, and tongue white, with trifling headach. In addition to these symptoms, she had cough coming in fits, and so frequent as to prevent her from getting any rest. Her breathing was not hurried in the intervals of the fits of coughing; and on examining her chest by percussion, it gave a clear sound, and only now and then could be detected a very slight sonorous or wheezing respiration: the respiration was otherwise perfectly natural. In this case the affection of the bronchia appeared to be only part of the general febrile affection under which she laboured; and the fits of coughing being quite out of proportion with the amount of inflammatory action, indicated either by constitutional symptoms, or by the physical examination of the chest, were viewed as arising from irritation rather than from much increased vascular action, and the treatment for the chest affection was merely the exhibition of demulcents with hyoscyamus, while the general febrile symptoms were combated with mild purgatives and the usual febrifuge mixtures.

The second case is that of Rafter, exhibiting a form of bronchitis very different from the last. She is a woman ætat 60, and had been suffering under chronic catarrh, but not to any considerable amount, until the acute attack supervened. On admission she complained of frequent and very fatiguing fits of coughing, and of oppression of her chest; her respiration was hurried, her expectoration mucopurulent. On percussion, the chest sounded quite clear, and over both lungs, but more particularly the right, there was sonorous respiration and mucous rattle; skin and tongue were natural; pulse 98, soft. She had for some years been subject to cough and oppressed breathing; and after exposure to cold, was seized with these symptoms in an aggravated form, for which she came into the hospital. Her bowels were freed, and she was then put upon decoction of senega, with spirit of nitre and tincture of squills. Her chest was blistered; and under the use at bed time of a few grains of Dover's powder and balsam of copaiba in half-drachm doses four times a day, the expectoration diminished, the respiration became easy, and she was dismissed cured. The balsam of copaiba is to many a nauseous medicine. I believe one of the forms in which it is most easily taken is that of emulsion, made by first rubbing up the balsam with almond confection, and then adding the required quantity of almond milk. In conjunction with this medical treatment, strong beef tea was allowed as nourishment. Having now run briefly through the treatment, I am to explain to you the principles which dictated it.

The diagnosis of the disease was easy. The patient had suffered of old from catarrh, was exposed to damp and cold, and was then seized with oppression of her chest, hurried breathing, and suffocative fits of coughing. The absence of fixed pain in the chest, the character of the expectoration, the clear sound on percussion, and the suffocative fits of coughing, with the mucous and sonorous râles heard in the chest; all these, taken in conjunction with the history of the case, distinguish it from pneumonia or pleuritis, and tell us that it is a case of acute, supervening on chronic catarrh. What was the danger to be dreaded in this case? Of what, supposing this case to have gone on unrelieved, would this patient have died? These are very useful questions for us to ask ourselves before we prescribe. In this instance, this old woman would have died (unless relieved) not of intense inflammation of any tissue, not of organic destruction of any important organ, but purely of suffocation brought on by the mechanical obstruction which a rapidly increasing secretion of mucus would have presented to the passage of air through the air tubes. These would have become blocked up; the respiratory muscles would at last have been worn out in the labour of drawing air through the air tubes, and would become unequal to the task of expectorating mucus as fast as formed, and she would have died what may be called a mechanical death. Such being the danger to be dreaded, the indication was of course to prevent a further effusion of mucus, to check its increasing secretion. The onset of an attack of acute catarrh grafting itself upon the chronic catarrh, is frequently attended with quick pulse, hot skin, and the usual general febrile symptoms. We must be careful not to mistake, in old persons particularly, this febrile attack for one requiring active treatment by depletion. It invariably subsides in a day or two, under the exhibition of mild purgatives and diluents. The local congestion terminates by copious secretion of mucus; for, from the previous chronic affection of the mucous membrane, this is its natural tendency, and the patient's whole strength is then required for ridding the lungs of the copious pouring out of mucus, which is taking place into the air tubes. If we have recourse to active treatment, particularly by bleeding, we do not succeed in checking the effusion; very great exhaustion sets in according as the fever subsides, and the case which, under other management, would have returned to its original state of chronic catarrh, would be thus, by injudicious activity, converted into suffocative catarrh. This patient's bowels having been freed, a blister was applied, to make derivation to the skin, and she was put

on decoction of senega, with tincture of squills and nitrous æther followed by balsam of copaiba. These are called expectorants—a class of remedies which contain medicines having very different properties, and which should be given according to the nature of the case, with very different intention. In the case of Dunne, medicines called expectorants were given, but the object was merely to allay irritation; and they consisted of demulcents, with small quantities of opium or hyoscyamus; the secretion from the bronchia then coming up without irritation, no attempt was necessary, or was made, either to diminish or increase that secretion. In other cases, as in dry bronchitis, constituting one, and a frequent variety of asthma, the patient only obtains relief by a copious secretion from the bronchia; and we seek to procure that by inhalations of vapour, by the exhibition of ipecacuanha, &c. In the present case, our object in giving an expectorant, as it is called, is the very opposite of what the meaning of the word conveys; for our object is to diminish the secretion from the bronchia, which threatens suffocation by its quantity, or would exhaust the patient by the repeated calls made on muscular exertion to throw it up. You may perceive from these few observations, that, in choosing a remedy from the class of expectorants, it is not a matter of indifference which of them you select. Ask yourselves first, before you prescribe, what you want to do. Is it to allay irritation? then you have the demulcents, the opiates, &c. Is it to procure secretion from a dry bronchial membrane? then, if there be nothing in the case contra-indicating it, there are nauseating medicines, alkalies, &c. Is it to check an already too abundant secretion? then you go to the medicines which act generally as tonic astringents, or specifically upon catarrh of the mucous membranes, as the balsams. If we were to neglect these divisions, and to an old patient like this, repeatedly coughing and throwing up cupsful of muco-purulent fluid, give opiates in large quantity, we would, indeed, succeed in making the patient cough less, but in diminishing by the opiate, the instinctive sensibility which the patient has of the presence of the fluid in the air tubes, we should destroy the best safeguard of life; for, if that instinctive, sensibility be much lessened, the fluid will accumulate, and suffocation will follow. It is for these reasons not safe, in cases of chronic catarrh verging on the suffocative, to give full doses of opiates, either at bed time or in cough mixtures. When the danger of suffocation had passed by, a few grains of Dover's powder (not sufficient to act as a soporific) were given at bed time. The balsam of copaiba was exhibited in this case, to fulfil the indication required, namely, to check the superabundant secretion from the mucous membrane. It seems to act specifically on catarrhs of mucous membranes; and I scarcely know of any remedy better, if the stomach bear it; and if well made up for exhibition, it seldom disagrees with the stomach of the old person. It has also a quality to recommend it in such cases, that it very frequently acts as a mild purgative. The diet was, as is necessary in such cases, nourishing without being stimulant.

I have described the manner in which old catarrh, when not checked, causes death, viz. by its filling up with muco-purulent fluid the air tubes, or in other words, by its running into suffocative catarrh; for suffocative catarrh—the peripneumonia notha of the older writers—is nothing but catarrh such as Rafter has laboured under, throwing out its secretion in such abundance that the tubes are at last filled up, despite of the constant expectorating efforts of the patient, who at last in the struggle dies exhausted; and such is likely to be the termination of Rafter's life, exposed as she will be, on leaving the hospital, to a repetition of the action of the causes which originally brought on her catarrh. We have in the case of Roberts the old man, an instance of this termination of catarrh, or suffocative catarrh. He has been brought into the hospital universally dropsied; his surface is cold; pulse weak only 60; face œdematous; lips purple; he cannot lie down, from the dread of suffocation; his respiration is extremely laborious; cough incessant; expectoration muco-purulent; over the chest there is sonorous and sibilous respiration, but scarcely any mucous rattle; the absence of the mucous rattle is worth remembering, for, from its being much less evident than in Rafter's case, it might at first be supposed that the tubes were free, but its absence in reality arises from there being such exhaustion in this the last stage, that the air is only playing through the comparatively larger tubes. There is no hope of saving Roberts' life. The disease has reached its last stage, in a constitution broken down by intemperance. He has, in addition to the chest disease, Bright's disease in the kidneys. His urine coagulates. I have done what I believe holds out the only chance of relief. His chest has been blistered; an emetic of mustard and ipecacuanha has been administered, and a mixture of camphor mixture, carbonate of ammonia, and æther, ordered to be given after the vomiting, with a full allowance of wine and strong beef tea. Vomiting in such cases sometimes snatches a patient in suffocative catarrh from the jaws of death. The emetic given should always be such as will at once produce full and free vomiting. It then acts as a general stimulant to the sinking vital powers. A nauseating emetic would be improper. In the effort of full

vomiting there is a mechanical relief given to the air tubes, in addition to the general stimulus given to the system. Immediately preceding the act of ejection of the contents of the stomach, there is a preparatory spasmodic action of the diaphragm, which is suddenly drawn down, and of the intercostal muscles, by which the ribs are suddenly drawn out; there is thus on the instant a sudden dilatation of the chest, and expansion of its minute air cells, such as no voluntary exertion could achieve; the air is drawn through, and beyond the plugging mucus, and the patient is then, in the succeeding expirations, enabled to expectorate the mucus, which before no muscular effort of his could throw up. Roberts is, however, too far gone to hope for almost any thing. His brain is already oppressed; he is falling into that semi-comatose stupor which is the invariable forerunner of death in such cases.

The next case is worth your notice, not for nicety of diagnosis, or philosophy of practice, but for what is just as valuable, viz. success in treatment; it is a case of chronic rheumatism cured in a very short time by hydriodate of potass. There is no disease not involving life, so plaguing to patient and physician as this, but it is now satisfactory to know, that in hydriodate of potass, we have a remedy that will cure more cases out of a given number, than I believe any other medicine in the Materia Medica. There has now been a fair opportunity of seeing its effects.

William Tyndall, aged 42, a sawyer, of intemperate habits, was admitted October 11th, complaining of pains in the joints of his right shoulder and arm, and of the thigh and leg of the same side. His joints have been painful for six months; when first attacked he was bled, the joints afterwards swelled, and he has not had the proper use of his limbs since; he is deprived of the power of earning a livelihood at his trade. His tongue is red at the tip, brown and furred in the centre; urine natural; pulse 70, weak. He attributes his attack to exposure to repeated heats and colds. He was purged, and when the tongue became cleaner he was put on a mixture composed of twenty-four grains of hydriodate of potass in four ounces of distilled water. Of this he took half an ounce, or three grains of the hydriodate, every third hour. In order to judge better of the effects of the medicine, neither bath nor liniment was ordered, and on the 22nd of November he was dismissed quite free from pain, and having only a little weakness in the affected limbs. How the hydriodate acts in curing chronic rheumatism I do not know, but in this disease, and periostitis after the use of mercury, it is an invaluable medicine. I have not been able to give in the large doses which I see mentioned in some of our periodicals. I have pushed it to eight grains three or four times a day, but in that dose it generally caused heat of the pharynx, with slight gastritis and general febrile symptoms, which obliged me to discontinue its use. I believe it should not be given while there is foul tongue or any fever.

We have a remarkable case of disease of the heart, viz. "permanent patency of the aortic valves," which will be the subject of our next lecture.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

BY DR. RYAN.

LECTURE II.

History of Female Obstetricians—Remote Origin of Midwives.

THE hygiene and diseases of women, the function of parturition, and all its consequences, were as much attended to in the earliest age as the health and diseases of the other sex.

The custom of affording aid at the nativity of the human species, existed for sixteen centuries anterior to the earliest records of medicine. Of this position we have the strongest evidence—namely, the sacred volume, in which we find this fact recorded, Genesis xxxv, xxxviii; Ezekiel xvi; Exodus i. Reason, instinct, and the finest feelings of our nature, led to the care and preservation of the helpless offspring, and to its disconnection from the parent, after its passage through the portal of life. Hence the legi-

timate inference that the first female of the human species, or her husband, must have separated the new-born infant from its attachment to the womb, or the placenta, at the birth of the first-born, for such separation could not take place by the operation of nature, as daily observation incontestibly proves. It is manifest, therefore, that human aid, either male or female, must have been afforded at the birth of the first of the species. The origin of midwifery is, therefore, to be traced to the second year of the world. The earliest reference to it is to be found in Genesis xxxv, in which it is stated that Rachel, the wife of Jacob, died in giving birth to a son, although the midwife declared there was no danger. The cases of Thamar and Ruth, also mentioned in Genesis, prove that midwives assisted during parturition. We find the next reference in the first chapter of Exodus, in which it is stated that the Hebrew women were delivered while sitting on stools. It is also recorded that the Hebrew women were not as the Egyptian, as they were lively, and delivered ere the midwives came unto them. The next reference to obstetricy among the Hebrews is in the fourth chapter of the first book of Samuel, in which it is stated that the wife of Phinehas, son of the high priest, lost her life by premature labour, induced by grief. The last allusion in the sacred volume to obstetrics, refers to the division of the navel cord. There is, however, no reference to male obstetricians in the sacred volume. But the concurrent testimony of all historians proves, indisputably, that women were the first obstetricians, and that midwives treated all the diseases peculiar to their sex. They were designated in terms analagous to grandmother, female physician, and navel-cutters in our language*. In fabulous history they were named Lucina, Minerva, Omphale, Olympias, Lasthenia, Mantinea, Berecunde, Leopard, Mena, Maia, Maria, Margaritha, &c. †

These women were held in high estimation by the public. They are mentioned by Hippocrates‡ under the title of ακεστριαι; and we find in Plato, and Diogenes Laertes §, that Phanareta, the mother of Socrates, was a midwife. Her son prided himself upon his descent, and designated his mother "*generosa et gravis obstetrix;*" and another contemporary of hers, Sotira, "*salvatrix et conservatrix,*" from the felicitous success of her practice. The sister of Pyrrho, the doubting philosopher, was also a midwife. The duties of this class, in ancient ages, was not only to assist during parturition, and to treat the diseases of women, but, according to Plato, to negotiate and assort marriages, and to teach their employers the art of procreating beautiful and healthful offspring. They likewise professed to produce sterility and abortion by their medicines and charms. The induction of abortion was frequent among them; and Pliny applauds Lais, a midwife of Athens, for having strenuously opposed a crime which she properly considered impious and unnatural, while a rival, named Elephantis, perpetrated it without hesitation. This crime was so common in the time of Hippocrates, that he bound his disciples by his academic oath to avoid it. Aristotle declared that midwives ought to be competent to tie the umbilical cord; and he approved of their practice, before tying it, of compressing the blood in it into the abdomen of the fœtus, with a view of invigorating the constitution. Among many other errors, they supposed that in proportion to the length of the umbilical cord, after section, would be the longitude of the virile member, and the profundity of the uterus; an idea still entertained by the vulgar.

A midwife named Aspasia had, according to Ætius, great reputation among the Greeks, and was celebrated for causing abortion, and rendering women

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* Μαιαι, ιατροµαιαι, ιατριναι, οµφαλοδροµοι.

† Delacoux, Biograph. des Sages-Femmes, 1833-34.

‡ Lib. de Carnibus, c. 9. § In vita Socratis, p. 90.

sterile*. Ternic, in his memoir of this person, states that her practice of inducing abortion led Hippocrates to sanction it; for he did on one occasion produce it in a singing girl, more in accordance with the practice of his time, than with his precept against it as a philosopher and philanthropist.

Galen also speaks of a midwife named Elephantis, who was very famed for cosmetics; and we find Moschion speaking of another, named Cleopatra—not the voluptuous queen of Egypt, as some have erroneously imagined. This woman lived A.C. 40, was acquainted with toxicology, wrote on female diseases (genesia), and on cosmetics.

The ancient Romans had also their midwives. Terence and Pliny mention some of the most famous, as Lesbia and Lais; and the latter describes Sotira and Salpa as among the most popular. These practised in female diseases, as Martial informs us:—

> "Hystericam vetulo se dixerat esse marito.
> Protinus accedunt medici, medicæque recedunt."

The midwives of Greece and Rome were not in general remarkable for their caution or judgment; for we find Socrates comparing himself to them, as destitute of wisdom; and Terence declaring that they were intemperate and rash, and unworthy of being entrusted with the care of a first parturition:—

> "Sane pol! illa temulenta est mulier et temeraria:
> Nec satis digna, cui committas primo partu mulierum."

Nevertheless, the ordinary practice of obstetrics was confined to women, not only in ancient Greece, Rome, Arabia, the Eastern empire, but even Europe; and male obstetricians were only referred to in dangerous cases. In proof of this position, it is right to state that all the celebrated physicians from the time of Hippocrates downwards, describe obstetric operations and diseases. They also were the inventors of instruments, and were not likely to resign them altogether into the hands of midwives. This fact is evident from the writings of physicians, philosophers, historians, and poets. Thus we find that Suetonius states, so early as the reign of Augustus, in the first century, that his empress Livia, having suffered a long time from a lingering labour, was attended by Musa, the court physician, who was summoned for the express purpose of accelerating parturition—"pro partu accelerando," as the historian informs us. It also appears by the statements of Celsus, who flourished at that period, that the male practitioner, whom he always terms Medicus, was employed in difficult parturitions. It is certain, however, that midwives were interdicted by the Athenians in the commencement of the Christian æra. Hyginus, a writer of this epoch, states that this polished people enacted a law prohibiting women and slaves from studying or practising any of the branches of medicine. The effect of this law was to consign obstetric practice to medical obstetricians, or to deprive women of all aid during parturition. Such was the high but mistaken sense of modesty of many of the Athenian ladies, that they preferred to perish during childbirth, sooner than receive aid from male obstetricians. This unfortunate state of things at length gave rise to an event which restored midwives to their former position. A young woman, named Agnodice, removed her hair and assumed the male attire, for the purpose of attending the obstetric lectures of the celebrated Herophilus. She succeeded without detection, and soon became extensively employed. The male obstetricians, finding their interests to be seriously injured, accused her, before the Arcopagus, of being

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* Tetrab. 4, Sermo. 4. c. 27.

a eunuch, and of corrupting men's wives. She discovered her sex to the Court, but would have been severely punished for violating the law, had it not been for the interposition of some of the most distinguished ladies of the city, who pleaded so feelingly and eloquently in her behalf, that she was not only liberated, but the obnoxious law repealed, and free permission given once more to women to practise the obstetric art and to treat the diseases peculiar to their own constitution. After this period, both male and female obstetricians were generally employed, as before the enactment of the law which was repealed. Such was the custom in all European and eastern nations, until the dark ages, as appears by the concurrent testimony of all medical and general historians.

It may be mentioned, in this place, that Numa Pompilius, A.C. 600, issued a law, "de inferendo mortuo," "lex regia," commanding that the bodies of all who died pregnant should be opened, so that the infants might be saved, if possible. The elder Scipio Africanus, Manius Manlius, and the first Cæsar, were born by this operation. In the year 452 before the Christian æra, the twelve tables contained a law, that the infant in the mother's womb was to be considered a living being, and all civil rights confirmed to it. These facts prove that male obstetricians were employed in certain cases of labours.

A midwife, named Trotula, who belonged to the celebrated school at Salernum, some say in the thirteenth century, was the first, according to Astruc, who published a special treatise on midwifery for the use of women. There was also a celebrated midwife named Sylvia or Victoria, in the eighth century, to whom Priscien dedicated his treatise *De Arte Obstetrica*. It is, however, much later, and nearer our own time, that midwives became authors.

Louisa Bourgeois, who lived in the time of Paré, was one of the first who deemed it necessary to empty the womb when there was severe hæmorrhage during parturition*. The midwives who practised at the Hotel Dieu with Mauriceau, have left a small work, which is worthy of female study†.

M. Velpeau informs us, that Madame Lemache was a distinguished midwife towards the end of the last century, and that one of her descendants, Mad. Choisy, is still so in Paris. He gives the following account of distinguished midwives‡.

The phantoms which are used to imitate parturition and obstetric operations, were conceived by Madame Leboursier Ducoudray§. It was Mad. de Lunel who made the best observations on retained or incarcerated placenta from irregular contraction of the uterus (chatonnement)‖.

Endowed with a great love of anatomy, Mademoiselle Bihermon successfully taught the art of midwifery in Paris and in London, where she had Hunter as a pupil. She possessed many wax preparations, and a perfect tocological mannikin. She died in 1785¶.

Mad. Cautenceau acquired great reputation at Bordeaux, where she conducted the Maternity to the general satisfaction. She published a small work for the use of midwives, 1798, which contained nothing original. In the preceding year Mad. Liquiere published an essay on the mechanism of parturition, which contained nothing new. France reveres the names of

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* Stérilité, perte des fruits, fecondite, accouchemens, Maladies des Femmes et des Enfans. Paris, 1608.

† Instructions familiares qu'une Sage-femme doit Savoir, &c. Paris, 1717.

‡ Traité Complet de l'Art des Accouchemens, &c. 1835.

§ Abrégé de l'Art Acch. Paris, 1759, 1777.

‖ Guillemot. Arch. Gen. de Med. 1766.

¶ Delacoux, Biographie des Sages-Femmes, pp. 34, 36.

other midwives, as Boucher, Bidard, Lalande, &e. but particularly of Mad. Lachapelle, and Mad. Boivin, whose works are now esteemed in all countries.

Other nations had also their celebrated midwives. In England, there was Mrs. Nihell, who condemned all instruments, and denied that the plaeenta was ever attached over the orifiee of the womb*. This name was supposed to be feigned by a French aceoucheur, who opposed Levret. Mrs. Blackwell lived in 1712, and published *A Curious Herbal*, eontaining 500 plates, which rendered her celebrated throughout Europe, 1736, 1759†. Mrs. Stone described faee presentations, and the injury done by ignorant women in attempting to remedy them‡. Lastly, Mary Dunally, an Irish midwife, who first performed the Cæsarean seetion in this country with sueeess, deserves mention§. She operated with a razor, as attested by Dr. King and Mr. Stewart, of Dungannon.

The following are the prineipal midwives of Germany, but they have not published any remarkable works:—Horenburgen, Justina de Brandenbourg, Mesdam. de Siebold, and Wyttenbach.

M. Delaeoux enumerates the eelebrated Italian midwives, among whom was Anne Morandi, of Bologne, famed for her wax preparations and course of anatomy. She died in 1744. Fulvie Morata died in 1555, when she was about to establish a school of midwifery at Heidelberg. The names of Angelina and Balardani are very little known in the reeords of medieine.

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* The Art of Midwifery, 1760.
† Delacoux. op. cit. p. 312.
‡ Complete Praetice of Midwifery. London, 1737.
§ Edinburgh Medical and Physical Essays, vol. i, 1731.

EXPERIMENTS MADE WITH DR. RICORD AT THE HOPITAL LES VENERIANS.

Pustulous Origin of Chancre—Progress of Chancre, healed only with Local Emollients—Inoculation of Chancrous Matter, with its Progress. By Alex. Thomson, M. B., of St. John's College, Cambridge.

Case.—Hyppolite Poirer, twenty-two years of age, had his attention directed to his penis by a slight tingling, nine days after having cohabited onee only, notwithstanding his having carefully washed the parts immediately afterwards. He then observed a slight redness on either side of the prepuee, and on the same evening was seized with general uneasiness and fever, which, however, he attributed at the time to a cold, and which lasted forty-eight hours; after which he perceived, for the first time, three extremely small white spots on the reddened surface of eaeh side of the penis: since this period, that is, during the next two days, he did not suffer in any manner, and pereeived no derangement in his functions, up to the 4th of May, when he was reeeived at the Veneieal Hospital.

He has no functional derangement, no uneasiness, exeept a slight itching of the prepuce, on wheh, at about half an inch from the frenum, and as much from the corona glandis, on both sides, are to be seen two oval red elevations of equal magnitude, rising abruptly from the membrane to the distance of two-thirds of a line, about one-third of an inch in diameter, which is parallel to the margin of the glans, flat, and smooth on the surface, harder than the surrounding parts, but still flexible, and presenting on either eminence, equi-distant from one another, three slightly elevated vesicles, of an oval form, two-thirds of a line in length, by half a line in breadth, very slightly elevated, without more prominent or harder parts for their base, eontaining an opaque yellowish white matter. He was ordered half the usual allowance of food, and rest in bed.

May 5th. Those pustules on the left side have ruptured, leaving small, conieal, grey bottomed ulcers, as yet no larger than the pustules of yesterday. The edges have not, as yet, assumed any hardness or prominence. Repose in bed, and the half diet, were ordered for him, and an inoculation was made on the corresponding thigh on either side; on the left, from the pustules not yet opened; on the right, from the open ulcers.

May 6th. Well, as regards all his funetions; has no discharge from the urethra. The pustules of the right side have also been converted into ulcers. Those of the left side have doubled in size, are surrounded by less general swelling, but by more diffused redness, and immediately around each of

them by a hard elevated edge of a redder hue: those of the right side not having as yet this edge. Another little pustule on the left side, as yet unopened, came since yesterday, though not more than one third of the size of the others, already contains opaque yellowish white matter. Both inoculated points are already surrounded by an areola, elevated gradually, but extremely slowly, towards the centre; redder than the skin, and becoming more intensely so towards the centre; about two thirds of an inch in diameter, having a portion immediately around the puncture much redder, and more elevated and hard, with one-eighth of an inch in diameter, and in that from the unopened pustules, surmounted already with a pustule, containing opaque yellowish white matter, and half a line in diameter. Repose in bed, and half nourishment.

7th. The chancres of the left side have enlarged, so as to have about half an inch in longitudinal diameter, and the little pustule not opened yesterday has made rapid progress as an ulcer, and joined itself to one of the others. Another ulcer is perceived, half the size of the others, upon the middle of the corresponding side of the frenum, and three or four, about one-third the magnitude of the first, opposite to them, and on the prepuce, within a line from the gland. The redness on this side is much more diffuse, and over the whole posterior half of the mucous part of the prepuce, which is swollen a little. The chancres of the right side are surrounded with less general redness and swelling, and have actually the same edges, characters, and magnitude, as those of the left side. Both areolæ of the inoculations increased in magnitude, being about one inch in diameter, and having both pustules now equally advanced, notwithstanding the different period of the commencement, flat at the apex, depressed with a dark spot in its centre, and about one line in diameter; the right one oval, the other round. No change in general health; still half nourishment, and repose in bed.

8th. He assures me that at the time of his last connection, he had subsequently to it a small erosion, at the middle of the left margin of that part of the prepuce, about to be reflected on to the gland, but that it was cicatrized some days previously to the commencement of the pustules; and indeed inoculation by these means would scarcely explain the symmetrical appearance of the pustules on both sides; and it is remarkable that no chancre exists, or has existed, upon the spot of this erosion. He also informs me that the pustules appeared the morning after he had mastubated himself. His general health and functions equally satisfactory. The original ulcers of the left side much increased, and nearly run together, having in some measure lost the circular form, and become irregular in the form of their edges. That of the left side of the frœnum is doubled in size, and those near the gland remain almost in the same state. The left half of the prepuce is neither so swelled nor so red upon its mucous face. Those of the right side are also doubled in size, surrounded with more vivid redness, and readily bleed, when touched. The areolæ of the inoculations are nearly of the same size, that of the left having a red streak passing upwards, and outwards from it for about an inch, and perhaps indicating the course of an inflamed absorbent. Both pustules remain nearly equal in size, but are one-third larger in diameter; that of the left, which appeared twenty-four hours after the other, having its base much larger, harder, more elevated, and of a bluish red hue: half nourishment, repose in bed.

9th. The ulcers of the left side quite stationary, those of the right side double the size, and nearly running together, and more irregular at their margins. The prepuce is generally slightly swollen; a gland situated in the left groin near the spine of the pelvis is hard, and has about half an inch in its ileo-pubic diameter, although he does not know when it became hard. The areolæ of the inoculations are unchanged, except in having lost the red transverse processes referred to inflamed absorbents. The right pustule is more distended, and has one-eighth of an inch, and with its elevated base one-fifth of an inch in diameter. The left pustule is also about one-eighth of an inch, but with its base, which is much indurated, elevated about a line above the areola, and bluish red; a quarter of an inch in diameter, being itself flat, and on a level with the summit of its indurated base. Health good; pulse 72. Continue the treatment.

10th. Health still in general good; pulse 72. The left bubo is now larger, and has three-quarters of an inch in its ileo-pubic diameter, movable, and not painful, even on pressure. On either side, at about two inches below the middle of Poupart's ligament, is a small tumour, feeling like a gland, of about three-quarters of an inch in vertical, or inguino-pedal diameter, and half that in transverse diameter, movable, hard, not painful when at rest, and only even when pressed on the right side. That of the right side came on the night before last, that of the left side last night. They are both, no doubt, some of the superficial inguinal glands, affected by the inoculations—the first time I have seen them so soon developed, under similar circumstances, during two months' attendance upon the venereal hospital in Paris. The glandular face of the left prepuce has still more swelling, tension, and redness, and is elevated about one line from the natural level, but the ulcers on both sides are unincreased in

size, with the exception of the left frenal, which is doubled. The two inoculatory pustules have their areolæ diminished to about two-thirds of an inch in diameter, that of the left side having the subcutaneous tissue universally hard and inflexible. The pustule of the left side is burst, nearly emptied, and covered with an irregular reddish brown crust. The right pustule has its base larger, a quarter of an inch in diameter, harder, blue, elevated one line above the skin, and is itself flatter, and nearly on a level with the summit of its base, and having at its centre, equal to one-third its own diameter, a greenish-brown crust. Continue the treatment, but bathe the penis two or three times a day, for a quarter of an hour each time, in decoction of linseed.

11th. The inguinal tumours are all three unchanged in appearance, and in sensation. The health is also good. The left frenal ulcer is about one-third larger. The left coronal ulcers have also increased in size in about the same proportion; those of the right side of the prepuce remain stationary; those of the left side of the same are a little increased, and tend still more to run together. The general swelling and redness of both sides of the glandular face of the prepuce are much diminished, nay, almost gone, and the edges of the ulcers neither so hard, nor so elevated. The remains of both inoculatory pustules are about a quarter of an inch in diameter, have their edges irregular, and consist of irregular reddish brown crusts; both their areolæ are now equally indurated, and increased in elevation, so that they form a cone of a faint bluish-red hue, from the areolar margin to the margin of the elevated edges, which have become confounded with them. That of the left side is also surrounded by a very large faintly red circular areola, swelling, but less abruptly, from its edge to the edge of the old areola, and making the whole diseased part about two inches in diameter. He assures me that this new areola, however, was much redder and more swollen last evening, and I now find the skin on which it lies indurated, but not so much as under the original areola. Continue the treatment.

12th. General health unchanged. The inguino-pubic bubo is much diminished in size and consistence, not having now more than two-thirds of an inch in diameter. The left vertical bubo has now no more than half an inch in inguino-pedal diameter, and is much softer. The right vertical bubo is much increased in hardness and in diameter, in which it has in the inguino-pedal direction an inch, and is prominent upon the skin, without redness. He suffered much lancinating pain, which has ceased, during yesterday, in the inoculations. The new areola of the left, with its subcutaneous induration, has vanished; the areolæ, both equal in size, have lost most of their blueness, and are but faintly red, preserve the same form, but have lost most of their subcutaneous induration; both had acquired the same reddish-brown crust on the pustule, which during the night had been elevated, and formed the central half of the skin of a pustule filled with pus, mingled with blood, about one-third of an inch in diameter, and of which the left has ruptured, poured out its contents, and been this morning replaced by a hollow reddish-brown crust; the right has still a portion of its sanious pus, and its original coating. The preputial ulcers nearly in the same state, but less deep, less indurated, and more red at their edges. The left preputial ulcers slightly increased in extent, but one of them half cicatrized. The left coronal ulcers all cicatrized but one, which remains *in statu quo*. This is remarkable, because they were the last to appear. The frenal ulcer unchanged in aspect. Continue the treatment.

13th. General health unchanged; pulse regular, 72; all the three buboes much softer, and diminished one-third in dimensions, the right vertical being no longer prominent above the skin; the areola of the inoculations similar in magnitude and appearance, but scarcely even red in hue, and having much less subcutaneous hardness, having their pustules, though flat, increased to half an inch in diameter, now again filled with matter resembling whitish yellow pus, mingled with serum covered with a skin, of which yesterday's crust forms the central one-fifth, is depressed and surrounded with a transparent epiderm distended with the matter and divided by radiating furrows into so many *cul de sacs*. The inoculations are now entirely free from lancinations, and the pustules had frequently ruptured during yesterday, and as frequently been refilled. All the ulcers of the penis in the same state, with the exception of the frenal ulcer, which is slightly increased in magnitude. Continue the treatment.

14th. The buboes are all softer, but in other respects unchanged. The general preputial redness considerably diminished; the cicatrices of the left side of the corona glandis slightly painful; the ulcers nearly in the same state. But another one similar in appearance, one line in diameter, has resulted on the left side of the corona glandis, more anteriorly than any hitherto, from a little pustule similar to the original ones, about one-third of a line in diameter, but slightly prominent, which existed there yesterday morning. The areolæ have now entirely disappeared, and been converted into two pustules, the right similar to that described in yesterday's report, each of three-quarters of an inch in diameter, and about half a line prominent from the skin,

the left replaced by an irregular dull reddish brown crust, under which is a fluid similar to that contained in the right; that is, watery pus. The subcutaneous induration of these pustules is still further diminished, and the edges are elevated and hard. The health unimpaired. Pulse regular, 72. Continue the treatment.

15th. Both pustules from the inoculations are now replaced by reddish brown, irregular, rough crusts, intermediate in appearance between those of rupia vulgaris and rupia prominens, both supported on elevated, indurated, faintly blue edges, permitting on pressure a small quantity of a watery, purulent matter to ooze out from beneath them; that of the right side being the last formed, and smaller and thinner than that of the left side, which has a tendency to a blackish brown colour. The ulcers are absolutely in the same state, and on neither side have run together. The buboes equally large, but softer; general health unimpaired; no stools till yesterday; pulse, 72. Continue the treatment. He has almond emulsion to drink; and has had so since the commencement. An injection containing two ounces of honey of the plant mercurialis. (Par. Pharm.)

16th. Inoculation crusts in the same state and relative proportion to one another, but thicker, broader, blacker, and permitting a thicker pus, tinged with blood, to ooze from under them when they are pressed. The buboes are absolutely in the same state. The prepuce also in the same state; but all the ulcers of the left side somewhat increased, those of the right being stationary. The frenal ulcer has one-sixth inch in length and one-eighth in its transverse diameter, and its long diameter parallel to the margin of the glans: the coronal ulcers are both round, equal to each other, and one-eighth of an inch in diameter. The left preputial ulcers only separated from one another by an elevated band of one-third of a line in breadth, having their long diameter parallel to the margin of the gland, and having one-fifth of an inch in long, and one-sixth in short diameter. These last are somewhat painful, much more so than heretofore. He had one stool previously to taking the lavement, and another rather copious, produced by the lavement. Continue the treatment. Health unchanged. Pulse regular, and 72.

17th. The buboes are stationary, as the ulcers, which, however, do not give him much pain. The crusts of the inoculations are increasing in size without changing in form. The pulse regular, calm, 72. He suffers a pain in the prepuce, when he pulls it back. Continue the treatment.

18th. The buboes, and ulcers, and inoculations in the same state, save that the anterior of the two coronal ulcers has commenced to cicatrize, having round its margins a new epiderm covering about one third of its area. The prepuce has ceased to be painful. Continue the treatment.

19th. He has not been to stool since the 15th, when he took an injection. In other respects he is in the same situation, save that the anterior coronal ulcer is now two-thirds cicatrized. Continue the treatment.

20th. From time to time feels lancinations beneath the inoculation crusts, which increase much in size, become, however, cupped or concave in the middle, and elevated, and more and more rugose towards the edges, and are surrounded by exfoliations of the cuticle over a small space only; all the chancres save the posterior coronal, which is unchanged, though in other respects in the same state, are filled up to a level with their edges, their surfaces still, however, retaining the greyish yellow aspect. He has occasional erections, but chiefly in the night. Both vertical buboes are harder; the left inguinal bubo is not only harder, but increases again in size, having an ileo-pubic diameter of three quarters of an inch, and a vertical of half an inch. Continue treatment. A lavement similar to that given on the 15th of the month.

21st. In every respect stationary. The lavement has produced but one good stool. Continue treatment, with the exception of lavement.

22nd. In every respect stationary, except that the inoculation crusts are about to fall, and allow a brownish pus to ooze from under their loosened margins. He has had no stool since the injection. Continue treatment.

23rd. The crusts of the inoculations have again become adherent, and are now each an inch in diameter, and about two lines in prominence. In other respects his state is unchanged. A chocolate-coloured pus oozes out from beneath the crusts. Continue.

24th. Left posterior preputial ulcer one-third cicatrized, the cicatrix being of a bluish red appearance. He is in other respects in the same state; had one stool yesterday, small in quantity, and very hard in consistence. Pulse 72, moderately full, soft, regular, compressible. Continue; but bathe the penis four times a-day.

25th. Crusts one-half increased in magnitude. Right præputial trio of ulcers commencing to cicatrize by the expansion of the separating band. The cicatrix commenced around the left anterior or coronal ulcer, has lost its epiderm, but is red and flat. Both coronal ulcers much more sensible. Pulse 66, soft, regular, compressible, and moderately full. Continue.

26th. State absolutely the same. Continue. No stool.

27th. Chancres and crusts absolutely in the same state. He had yesterday one small and very hard stool. Pulse 72, moderately full, soft, regular, and compressible. The

tongue is clean. Continue; but three fourths nourishment.

28th. The whole of the præputial ulcers much contracted by the approximation of their edges, those on the right side being one-third cicatrized by the expansion of the band supporting their adjacent edges, the posterior of these being also one half cicatrized from behind forwards; those on the left side also being cicatrized in their inner third, that is, in their adjacent third from the expansion of the band separating their adjacent edges. The crusts in the same state, but having the cutiele, for two or three lines round them, exfoliating in small scales. He had no stool yesterday. The buboes are *in statu quo*. He did not receive the three fourths nourishment yesterday; let him have it to-day. Pulse unchanged.

29th. The penis is nearly in the same state. The cicatrization is slightly, but very slightly advanced. The inoculatory crusts, when pressed upon, allow a fetid chocolate-coloured pus to ooze from beneath them. Both are surrounded by a faint blush of red, of about half an inch in breadth. Both crusts are now about an inch and a quarter in diameter. He complains of having had nearly constant lancinating pains in the inoculation sores, but particularly in the left, all night, and all last evening, and been prevented from sleeping comfortably by the same, but no longer feels them at present. The pulse is the same as on the 27th. Continue, and apply a cataplasm of linseed on the left inoculatory crust.

30th. The cicatrizing bands of the two trios of præputial chancres doubled in breadth, presenting between each two ulcers a breadth of about a line. This membrane is smooth, level, and of a bluish red hue. The anterior of the left trio has also begun to be cicatrized from the middle of its anterior margin, from whence there proceeds a round portion of cicatrix of about half the size of a linseed. The right inoculatory crust and the buboes *in statu quo*. The left inoculatory crust has fallen with the cataplasm, and allowed of an ulcer being seen, round in form, three quarters of an inch in diameter, with elevated, hard, blue edges, about a line above the skin, from which they arise gradually, commencing at about the distance of two lines from the margin of the ulcer, at which they terminate in a regular, sharp edge, bounded internally by a yellowish white, dry, crusted band, about half a line in breadth, separating them from a series of large round yellowish red granulations, surrounding and filling up the circumference of the ulcer to the distance of a line and a half from the margins, arising for half a line above the level of those margins, and dry on their surface, and apparently covered with a thin dry crust, formed rather since the removal of the poultice, than by an epiderm. The remainder of the ulcer is filled up to half a line below the summit of these granulations, with other small granulations, covered in the outer two thirds by an irregular, thin, rough, brownish yellow crust, permitting them to be seen beneath it, and in the inner third by a quantity of light chocolate coloured pus. In contact with the whole of the inner margin is a band of skin of about two lines in breadth, elevated for about one third of a line, of a bluish red hue, level, and with a dried epiderm, but in no spot ulcerated, being the portion of skin over which the matter oozing from the crust dried. The red areolar blush noticed yesterday still surrounds both the right crust and the left ulcer. It is worthy of remark, that the granulations have been made under the crust, notwithstanding the constant presence of the pus. The base of the left ulcer is still hard, but the hardness, as well as the colour of its margins, does not extend beyond the line where these margins spring from the skin. The cutiele of the edges of the ulcer is exfoliating in small white scales. He does not suffer nearly so much in the inoculatory sores, and has now rarely lancinations in them. The pulse is 72, moderately full, soft, regular, compressible. The tongue clean, moist, and normal in colour. He had no stool yesterday. Continue, but administer an emollient lavement, with two ounces of the honey of the mercurialis. (Paris Pharm). Bouillon aux herbes, a pint.

31st. The left inoculation ulcer covered this morning with an elevated tolerably thick, tuberculate, rough, reddish brown, crust adherent to the elevated edges of the ulcer, moulded upon, and retaining the form of the large granulations, and rather translucent, particularly towards the edges, where its colour is paler, being in the centre opaque, and nearly blackish red. The elevated portion of the skin, also, in contact with the interior margin of the edge of the ulcer, covered with a flat, level, tolerably thick, translucent, hard, yellowish brown crust. The base of this ulcer considerably harder, and the subcutaneous induration extends nearly to the excentric margin of the large areola, which is now somewhat redder. He has been again annoyed yesterday by lancinations in this sore. The right inoculatary crust unchanged. The prepuce is considerably swollen, he having had several painful erections during the night. The anterior of the left trio of præputial ulcers is now almost entirely cicatrized in the posterior half. The bands of cicatrization are in general rather expanded. Buboes in the same state, the inguinal ileo-pubic slightly painful on pressure. The pulse is 60, moderately full, regular, soft, compressible. He passed but very little hard matter, and that with the lavement. He has slept well, and comfortably. Poultice of linseed meal to the right inoculation crust. Con-

tinue the rest with one cup of bouillon aux herbes.

(To be continued.)

Reviews.

Pharmacopœia in usum Nosocomii Regii Glasguensis. Auctore R. M'Gregor, Chir. ejusdem Nosocomii Pharmacopœo, &c. Editio Secunda. 18mo. pp. 36. 1835.

(*Concluded from p.* 18.)

Solutio Cyanidis Potassii.
℞. Cyanidis Potassii grana triginta et duo,
Aquæ destillatæ unciam.
Solve, dosis, minima decem.

Solutio Hydrochloratis (Muriatis) Morphiæ.
℞. Hydrochloratis Morphiæ grana quinque,
Acidi Muriatici (Hydrochlorici) diluti P. L. minima decem,
Aquæ calidæ unciam. Solve.
Dosis, drachma dimidia.

Solutio Iodidis Ferri.
℞. Limaturæ Ferri grana decem,
Iodinii drachmam dimidiam,
Aquæ destillatæ uncias sex.
Aquæ phialæ vitreæ inditæ addatur Ferrum et postea Iodinium dein digeratur mistura quamdiu fiat cærulea additione mucilaginis Amyli et coletur, servetur bene obturata.
Dosis, drachma ex aqua gelida.

Soluti Iodinii (Lugol).
℞. Iodinii drachmas duas,
Iodidis Potassii (Hydriodatis Potassæ) drachmas quatuor,
Aquæ destillatæ uncis sex. Solve.
Dosis, guttæ decem.

Solutio Iodinii Rubefaciens.
℞. Iodinii drachmas quatuor,
Iodidis Potassii unciam,
Aquæ destillatæ uncias sex. Solve.

Solutio Iodinii Caustica.
℞. Iodinii,
Iodidis Potassii utriusque unciam,
Aquæ destillatæ uncias duas. Solve.

Solutio Nitratis Ferri (Persesquinitrate).
℞. Ferri, in frustula discissi unciam et dimidiam,
Acidi Nitrici fortioris uncias tres,
—— Muriatici fort. drachmam,
Aquæ uncias viginti et septem.
Ferro vasi vitreo indito addatur Acidum Nitricum cum aquæ unciis quindecim, prius mistum; vas seponetur donec Acidum saturetur, dein effundatur liquor et coletur; postea addantur aqua residua et Acidum Muriaticum. Dosis sit drachma.

Solutio Opii.
℞. Pulveris opii grana duodecim.
Mucilaginis Acaciæ Arabicæ uncias duas,
Aquæ uncias quatuor.
Tere pulverem cum mucilagine et adde aquam.
Adhibeatur pro enemate uncia dimidia post singulam alvi dejectionem liquidam.

Solutio Periodidis Hydrargyri.
℞. Periodidis Hydrargyri rubri,
Iodidis Potassii utriusque granum,
Aquæ destillatæ unciam.
Solve, drachma sit dosis.

Spiritus Hordei vel Frumenti (Whisky),

Spiritus Lauri Cinnamomi.
℞. Olei Lauri Cinnamomi unciam,
Alcoholis fortioris uncias quatuor.
Solve.

Spiritus Menthæ Piperitæ.
℞. Olei Menthæ Piperitæ unciam,
Alcoholis fortioris uncias quatuor.
Solve.

Spiritus Menthæ Sativæ.
℞. Olei Menthæ Sativæ unciam,
Alcoholis fortioris uncias quatuor. S.

Spiritus Juniperi compositus (Gin).

Spiritus Vini Gallici (Brandy).

Strychnia (Strychnos Nux Vomica).
Dosis, duodecima pars grani ad dimidium.

Syrupus Hyosciami Nigri.
℞. Extracti Hyosciami Nigri unciam,
Syrupi simplicis uncias sexdecim,
Solve et ope caloris balnei aquosi coque ad uncias duodecim.
Dosis, drachma ad drachmas tres.

Syrupus Opiatus.
℞. Tincturæ opii drachmam,
Syrupi simplicis unciam. Misce.
Dosis, drachma dimidia ad unciam dimidiam.

Tinctura Conii Ætherea.
℞. Foliorum Conii Maculati unciam,
Etheris sulphurici uncias sex.
Digere per dies septem et cola.
Dosis, a scrupulo ad drachmam.

Tinctura Iodinii.
℞. Iodinii scrupulos duos,
Alcoholis fortioris unciam. Solve.
Dosis, guttæ decem.

Tinctura Lobeliæ Inflatæ.
℞. Foliorum Lobeliæ Inflatæ unciam,
Alcoholis dilutioris uncias octo.
Digere per dies septem et cola.
Dosis, a scrupulo ad drachmam.

Tinctura Lobeliæ Ætherea.
℞. Foliorum Lobeliæ Inflatæ unciam,
Etheris Sulphurici uncias octo.
Digere per dies septum et cola.
Dosis, a scrupulo, ad drachmam.

Tinctura Nicotianæ Tabaci.
℞. Foliorum Nicotianæ unciam dimidiam,
Alcoholis dilutioris uncias octo.
Digere per dies septem et cola.
Dosis, a scrupulo ad drachmam.

Unguentum Percyanidis (Cyanureti) Hydrargyri.
℞. Percyanidis Hydrargyri triti grana tria,
Unguenti simplicis unciam. Misce.

Unguentum Gallæ cum Acetate Plumbi.
℞. Acetatis Plumbi scrupulum,
Unguenti Gallæ unciam. M.

Unguentum Gallæ Opiatum.
℞. Pulveris Opii drachmam,
Unguenti Gallæ unciam. Misce.

Unguentum Hydrarg. Camphoratum.
℞. Camphoræ ope Alcoholis guttarum Aliquot tritæ, scrupulos duos,
Unguenti Hydrargyri unciam. M.

Unguentum Iodinii.
℞. Iodinii scrupulum,
Alcoholis fortioris minima decem,
Unguenti simplicis unciam.
Solve Iodinium ope Alcoholis dein adde unguentum.

Unguentum Periodidis Hydrargyri Rubri.
℞. Periodidis Hydrargyri in pulverem tenuissimum triti grana duo,
Unguenti simplicis unciam. Misce.

Unguentum Iodidis (Iodureti) Plumbi.
℞. Iodidis Plumbi drachmam,
Unguenti simplicis unciam. Misce.

Unguentum Iodidis Potassii (Hydriodatis Potassæ).
℞. Iodidis Potassii drachmam,
Aquæ minima decem,
Adipis suillæ unciam.
Solve salem ope aquæ dein misce cum adipe.

Unguentum Iodidis Zinci.
℞. Iodidis Zinci drachmam dimidiam,
Unguenti simplicis unciam. M.

Unguentum Liquoris Subacetatis Plumbi.
℞. Liquoris subacetatis Plumbi drachmam,
Unguenti simplicis unciam. Misce.

Unguentum Protoiodidis Hydrargyri.
Fit cum scrupulis duobus vel quatuor ad Axungiæ Porcinæ unciam.

Unguentum Simplex.
℞. Adipis suillæ partes quinque,
Ceræ flavæ partem unam.
Liquescant simul, dein agitetur mistura donec frigescens riguerit.

Unguentum Tartratis Antimonii.
℞. Tartratis Antimonii et Potassæ drachmam,
Adipis suillæ unciam. Misce.

Unguentum Terebinthinæ Venetæ (Perry).
℞. Terebinthinæ Venetæ partem unam,
Adipis suillæ partes quinque. M.

Unguentum Oxidi Bismuthi.
℞. Oxidi Bismuthi triti drachmam,
Adipis suillæ unciam. Misce.

Unguentum Veratriæ.
℞. Pulveris Veratriæ grana decem,
Unguenti simplicis unciam. M.

Vinum Atropæ Belladonnæ.
℞. Extracti Belladonnæ drachmam,
Aquæ calidæ unciam,
Vini albi Hispanici uncias septem.
Tere extractum cum aqua in mortario ut solvatur, dein vinum adde et per chartam cola.

Vinum Colchici Autumnalis.
℞. Seminum Colchici contusorum unciam,
Alcoholis dilutioris,
Vini Albi Hispanici, utriusque uncias sex.
Macera semina per dies quatuor in Alcohole, dein adde Vinum et post dies tres cola.
Dosis, drachma dimidia ad drachmam.

Vinum Tartratis Antimonii.
℞. Tartratis Antimonii et Potassæ grana viginti quatuor,
Aquæ ferventis,
Vini Albi Hispanici, utriusque uncias sex.
Solve Tartratem in aqua dein vinum adde.

—o—

The American Cyclopædia of Practical Medicine and Surgery, a Digest of Medical Literature. Edited by Isaac Hays, M. D. Parts vi, vii. January and April, 1835.

This elaborate work maintains the high position which it justly attained on the appearance of its first number. Its authors are the medical professors of America, and its editor one of the most learned and experienced physicians and surgeons of the present age.

This work differs from all cyclopædiæ in the English language. It comprises the anatomy, physiology, pathology, and medical treatment of all parts of the body, and really is what its title expresses, "A Digest of Medical Literature." It is an excellent epitome of the *Dictionnaire de Sciences Medicales*, and of the celebrated German cyclopædia, entitled *Encyclopädisches Wörterbuch der Medicinischen Weissenchaften*, now in course of publication in Germany. It also contains the substance of other English and French Dictionaries now passing through the press, together with a large quantity of original matter, peculiarly American. It is likewise a dictionary of medical terms, more especially of those which modern discoveries have introduced into the nomenclature of the science, and without a knowledge of which, many works of the present

day are almost unintelligible. In short, it is intended that this work shall constitute a complete "*Library of the Medical Sciences.*" The editor judiciously remarks:—

"Medical literature has now become so copious, the facts upon which the science is based are so numerous, scattered through such an immense number of volumes, and recorded in so many languages, that it is impossible for any physician whatever may be his industry or leisure, to compass the whole. The value of, we might say the necessity, for some such digest as the present, will therefore be at once admitted.

"The highly respectable names on the list of collaborators, affords a sufficient guarantee for the ability with which the articles will be prepared. The editor has long been collecting materials for a work of this kind, and he possesses a larger collection of American medical works, than is to be found in any other library."

Though we readily admit the excellence of this work as a whole, we must at the same time declare, that some of the contributors have executed their task very slovenly and superficially. This was to be expected, when so many are concerned in the execution of the work. But taking the American Cyclopædia of Medicine and Surgery altogether, there is no production equal to it in our language. In proof of this statement, we shall place before our readers a small portion of the article Anus, and we leave them to draw their own conclusions on the comparative merits of it, and some of the productions lauded hyperbolically in this metropolis. We commence with the pathology of the anus, and omit the anatomy and physiology of this part, because it would occupy much more space than our limits, but not our inclination, allow us. We leave our readers to form their own opinions on the comparative value of late works and lectures on diseases of the rectum, which, in our opinion, with the exception of Salmon's and O'Beirne's, are not only below mediocrity, but are absolute claptraps to obtain practice.

"Art. III. *Pathology of the Anus.*—In treating this subject, we shall avoid the consideration of those morbid affections which may be more conveniently referred to the articles on the pathology of the rectum and the perinæum; and shall confine our observations to such diseased appearances as take their name from this region, in which they are wholly or partly seated. The therapeutical and surgical treatment will be given in connexion with the history of each disease, in the several sections on, 1, Neuralgia; 2, Spasm; 3, Atony; 4, Injuries; 5, Prolapsus; 6, Inflammation; 7, Blennorrhagia: 8, Organic Stricture; 9, Tumours: 10, Ulcers; 11, Fissure; 12, Preternatural Pouches; 13, Abscess; and 14, Fistula. The subject of artificial anus being intimately connected with hernia and obstructions of the intestines, will be referred to the appropriate articles; and much of the matter relating to preternatural and imperforate anus, will be most naturally considered under the head of vices of conformation. We have nevertheless devoted a short section of the present article to the last named error of structure. Hemorrhoids demand a separate article, as they involve parts and actions so far removed from the anal region, that their pathology could not be properly included.

"§ 1. *Neuralgia of the Anus.*—M. Campaignac (Journ. Hebd. 1st series, II. 396) has described, under this name, a disease which in some of its forms is sufficiently familiar to the profession in America. M. Velpeau also quotes Ullman (Encycl. Worterbuch der Med. Wissenschaft. I. 534), for a description of the same disease. Although we have strong doubts whether the primary seat of this affection is in reality the anus, and though further researches may possibly prove that it is not essentially a neuralgic affection, our avowed design of giving a view of the existing state of medical knowledge and opinion, obliges us to notice it here; referring to the article *Bladder*, for a more complete account of the whole progress of the disease.

"The causes, says Velpeau (Dict. de Med., ed. 2nd., III. 282), are unknown Neither redness, swelling, nor the slightest alteration, are perceptible in the part. The fundament becomes the seat of lancinating pains, which appear to be very superficial, and cause the patient to dread the least pressure on the part. These pains are frequently paroxysmal in their attack, sometimes coming on suddenly, sometimes more slowly, leaving the patient entirely free during the intervals. In other cases, the pains are constant, with occasional exacerbations. In some persons, the anus appears to undergo momentary and forcible contractions, followed by speedy relaxations; in others, on the contrary, it is seen to expand to such an extent, that involuntary discharges take place. The neck of the bladder soon becomes affected, and all the rational signs of urinary calculus are shortly superadded. The symptoms are rendered more severe by exercise, particularly if the patient becomes heated.

"M. Velpeau goes on to describe the train of symptoms as observed in the urinary apparatus. (See *Bladder.*) According to

the authorities quoted, no course of practice has been found generally applicable in this disease. Baths, opiates, antispasmodics, the pills of Méglin, &c., have been tried in every form, without effect. When the bladder becomes affected, the introduction of the catheter is attended with great pain, and a remarkable burning sensation. According to Velpeau, this pain sometimes ceases instantaneously, when the instrument has fairly entered the bladder; but Campaignac (Op. Cit.) remarks, that when the mucous membrane of the bladder becomes irritated in the progress of the disease, all attempts at exploration are productive of acute suffering. He mentions, however, a case treated by M. Cheneau, in which the paroxysms were very violent, but were immediately calmed by the catheter; which case was finally cured by its repeated employment. Velpeau states that those patients who have been operated upon, under the impression that there were calculi in the bladder, have generally recovered both from the operation and the disease. One case only terminated fatally, and the subsequent examination discovered no morbid appearances either in the bladder or the anus. A patient who complained only when sitting, and who was able to pursue his usual avocations, was relieved by the application of pledgets imbued with an unguent containing the extracts of belladonna and opium; another, similarly affected, received no benefit from this treatment. In the case of one strong, robust patient, baths, general and local bleedings, the pills of Méglin, and the topical use of belladonna and opium, were employed, but no benefit was obtained until after the cessation of all remedial measures; in another, the use of the carrot tisane, soda-water, lime-water, and milk, the pills of Méglin in large doses, and the pills of cynoglosum, finally effected a cure. Clysters and gentle purgatives he recommends, in order to prevent the exacerbation likely to attend on the discharge of hardened fæces in costiveness; but he confesses that the therapeutical management of this disease is as little understood as its nature; and he states that it wears off with time.

"It appears to us more than probable that several different affections have been classed together, by the authorities just noticed. Those of the cases mentioned by M. Campaignac, in which the symptoms simulate those of calculus, and which, in their advanced stage, produce extensive discharges of mucus from the urinary organs, seem to resemble a disease not unknown in our hospitals, the proper or primary seat of which is the bladder: it will be described at length under the appropriate head, where the question of the propriety of arranging it with neuralgic affections will be considered. Other cases on record were very probably the result of those changes in the structure of the anus, noticed by Dr. Physick, which produce false pouches in the middle and lower region of the anal canal; changes which we believe had escaped detection, until the attention of the profession in this country was called to them by that eminent surgeon in his lectures. (See § 12.) Still there can be no reason to doubt the occasional occurrence of genuine neuralgia, primarily seated in the nerves of the anus and its neighbourhood, similar in character to that which occurs in other parts: but we are convinced of its extreme rarity, and feel assured that increased attention to the condition of the canal and the organs that surround it, will lead surgeons to be much more cautious in referring cases to this head. (See the sections on *Spasm, Fissure, Stricture,* and *Preternatural Pouches.*)

"*Bibliography—Ullman.*—Encyclopädisches Worterbuch der Medicinischen Wissenschaften. I. 634. Berlin, 1828.

"*Campaignac.*—Journal Hebdomadaire. 1st series. I. 634. Paris, 1828.

"§ 2. *Spasms of the Anus.*—Besides the various irritations located primarily in or about the canal of the anus, there are many other causes capable of producing pain and spasm in that part. The associations of the anus with the neck of the bladder and the urethra in the male, and with the vagina in the female, are so close, both in consequence of their proximity, and their combined action in the performance of certain functions, that any unusual excitement of the latter organs is exceedingly apt to extend itself to the former. Spasmodic stricture of the urethra, or other irritations at the usual seat of that affection, such as are very frequently produced by excessive indulgence in venery, or in certain unnatural crimes of like character, often occasion spasmodic contractions of the external sphincter ani muscle, and consequent irritation of the lower portions of the canal. After each usual indulgence, severe burning, and sometimes lancinating pain, is felt in the neighbourhood of the bulb of the urethra; the patient is tormented by a constant desire to urinate, and if the absence of stricture enables him to evacuate the bladder completely, he continues discharging the urine guttatim almost as fast as it accumulates. After each discharge, a spasmodic contraction of the accelerator urinæ occasions an intolerable ardor. The sphincter ani participates in the spasm, and the same kind of pain is experienced in the anus. The rectum is also provoked to expel its contents, but it sometimes succeeds with difficulty, in consequence of the constriction. During the flow of urine and the passage of fæces, the symptoms are in a great degree relieved, and they are considerably mitigated, by the descent of the upper portion of the anus under abdominal pressure, so that the patient is induced to make frequent ineffectual

efforts to go to stool; but the pain returns in full force, upon the cessation of the efforts. The duration of the symptoms is very various; sometimes they pass off in half an hour, and at others they endure for twenty-four hours, or longer; while they continue, they are often very severe. When they have become habitual, they do not disappear with the removal of the usual exciting cause, but are reproduced by the slightest accident, such as may occur in riding on horseback, over-exertions, &c.; and sometimes an attack is determined simply by costiveness. Paroxysms that occur in the night are generally most painful. Cases of this character have been occasionally mistaken for neuralgia of the anus, the symptoms being very analagous. This error is more likely to occur, because of the extreme aversion generally displayed by the patient to acknowledge the true cause of the complaint; for although it is undoubtedly produced in some instances by unavoidable accidents, it is much more generally the result of improper indulgence.

"When the same species of irritation is extended to the neck of the bladder, the prostate gland, or the vesiculæ seminales, whether it be caused by similar habits or by calculus, enlarged prostate, &c., the train of anal symptoms is somewhat varied. There is less burning pain in the intervals of the efforts at stool, but there is more soreness from severe involuntary tenesmus; the external sphincter is still spasmodically affected, but the levatores ani partake of the spasm, and frequently overcome the resistance of the sphincter; even the muscular fibres of the rectum, and the internal sphincter, may experience the same kind of irritation. Hence result the alternate contraction and dilatation of the anus and the involuntary discharges, noticed in the preceding section, as also the severe tenesmus, and the prolapsus of the mucous membrane, so frequently observed in the paroxysms of stone, and other diseases in or about the bladder.

"We believe that in the great majority of cases, the train of symptoms just described originates in the urinary apparatus, and that the anal affection is consecutive. This complaint, though sufficiently common, does not appear to have attracted the attention it deserves, for its effects are not unfrequently enumerated among the characteristic symptoms of diseases, of which, perhaps, they are as frequently a cause as a consequence.

"The treatment of the first form of this affection, consists in the removal of the exciting cause, and the employment of measures calculated to combat spasm in general. Mild cases seldom come under the notice of the surgeon; but in those which have become habitual, we have succeeded best by the long-continued application of considerable heat by means of bottles of hot water, and by injections of mucilage of the pith of sassafras into the urethra, and, in very severe paroxysms, opiate enemata. To prevent the recurrence of paroxysms, all that is required is the avoidance of every cause of mechanical irritation, violent exercise, and such errors of diet as are calculated to render the excretions unusually stimulating. In some cases, the application of local heat increases the violence of the symptoms, and relief is obtained from the very opposite course. When inflammation supervenes upon the spasm, leeches and cold to the neighbouring parts are strongly indicated. They should be addressed as nearly as possible to the original seat of irritation, when it can be ascertained. If, as sometimes happens, fever should be induced, it is to be treated on general principles.

"The treatment of the second form of this disease does not differ essentially from that of the first, so long as it remains simple in character; but as the parts interested are more numerous, involved to a greater degree, and deeper seated, constitutional symptoms and secondary complications are much more likely to occur. Its causes are often incapable of immediate cure; the treatment is therefore merely palliative, and will be noticed under the heads of the several diseases that produce it. (See Prostate Gland, Bladder, &c.)

"But spasms of the anus do not always depend upon irritation of the urinary organs. Cases of far greater violence and danger, though fortunately less frequently met with, originate from irritations of various kinds seated in the anus itself, or in the rectum. Mr. Calvert, who has given a very accurate account of this disease, describes it as appearing at first with some degree of smarting pain, and a feeling of resistance at the orifice of the gut during an evacuation. After some time the difficulty of voiding fæces becomes much greater, the stools being rendered small, flat, and twisted spirally, as in cases of stricture of the anus or rectum, and the discharge intensely painful. The dimensions of the masses of fæces are not uniform, being sometimes large and evacuated with force and rapidity; at others, as small as a piece of fine tape, and passed slowly, with great exertion. This variation shows that the spasm extends to all the muscles of the anus, and even to those of the rectum, affecting sometimes one part, and sometimes another, and furnishing the means of distinguishing the complaint from organic stricture. According to Mr. Calvert, the pain comes on soon after the patient has had a motion, continues for a short time, and does not return until the following day, or still later, if the bowels are not moved in the interval; but in persons of very irritable habits, it may be produced by

the slightest causes, such as the escape of wind, unusual exertion, passions, or any other cause of general or local excitement. The pain is sometimes intolerable, and gives rise to cries of agony. Occasionally, it assumes a periodical character, coming on in some patients regularly, and generally in the evening of each day, with a total calm in the intervals; and in others, making its attack at irregular periods, leaving behind it a constant uneasiness, numbness, or aching pain. (Pract. Treat. on Diseases of Rectum, &c. p. 211). According to Mayo, the attack generally comes on during the night, waking the patient with excruciating pain. In some cases, its approach is gradual for several days, and then it as slowly declines; while in others, it seizes the patient suddenly, and after lasting a certain time, as suddenly disappears. (Obs. on Diseases of the Rectum, p. 185). Copeland, who met with many cases of constipation and other more painful and serious consequences from contraction of the anus, where no stricture or other morbid change of structure could be discovered, attributed the symptoms to an undue development of the sphincters, for he always found both these muscles very much enlarged and unusually strong in such cases. Boyer, who considered spasm of the anus chiefly as connected with fissure (q. v.), met with cases of difficulty so early in life that he considered the disease as congenital. Calvert thinks it more reasonable to suppose that the increased strength of the sphincters is owing to a hypertrophy induced by frequent irritation and the constant recurrence of the spasm. The latter author remarks that the degree of contraction is not always in proportion to the sufferings of the patient; but when in this complaint the sphincters are rigidly contracted, intense pain is a necessary consequence of anything that irritates the anus, or produces dilatation suddenly. If, in this state of things, the finger be passed within the anus, the external sphincter muscle is found to encircle the orifice like a thick, unyielding ring; and, higher up, the parietes of the gut feel unusually firm and solid, when pressed against by the point of the finger, from a similar development and contraction of the muscular fibres of the internal sphincter; while, in some cases, where there is much vascular excitement, the contraction has been found to extend along the whole of the rectum. (Op. cit. p. 213.) Mayo also objects to the use of opiate suppositories in these cases, because any attempt to introduce them occasions increased contraction of the irritated sphincters. (Loc. cit.) It is remarked by nearly all the writers, that the persons most subject to this complaint are females, and individuals of a nervous temperament.

"It is much to be regretted that so few surgeons have studied the diseases of the rectum and anus with the exercise of that care and discrimination which their importance demands. We think it will be evident to all who read the hasty outline of the opinions of different authors just given, that spasm of the anus is more frequently a symptom than a distinct affection, and that writers have erred in enumerating under this head the features of various complaints, not less different in their appropriate treatment than in their causes and nature. Nevertheless, we feel considerable diffidence in attempting to clear the diagnosis of these affections, for, although some of them are met with not unfrequently, and are, therefore, sufficiently familiar, there are others of rare occurrence everywhere, and almost unknown on this side of the Atlantic—nor are the recorded cases and examinations presented to us with all that detail and precision of language which are required to render documentary evidence in surgery a substitute for personal experience. The following remarks, however, will perhaps prove valuable, by calling the attention of the profession more particularly to the subject hereafter, and by explaining the confusion and conflict of principles, so obvious in the practical directions of authors.

"The cases properly ranged under the head of neuralgia of the anus and bladder, so styled by M. Campaignac, as noticed in the preceding section of this article, are not very strongly distinguished in their first rise, being liable to be mistaken for spasm from irritation of the urinary organs—the common and comparatively mild complaint, noticed at the commencement of the present section. They are recognized with great facility at a later period. The absence of all perceptible disease of the rectum itself, the great extent and gravity of the symptoms affecting the urinary apparatus while there exists no obvious cause for them; the extreme pain generally produced by introducing the catheter, and the frequent cessation of that pain when the instrument has fairly entered the bladder; and, more especially, the presence of the rational symptoms of calculus, give to this group a peculiar character, and the cases are more likely to be confused with those of diseased prostate gland, as described by Home, than with spasm of the anus. (See Bladder, Neuralgia of.)

"Another group of cases is characterized by the ardor urinæ, confined to the region of the accellerator urinæ muscle, the burning pain in the anus, and other symptoms, originally occasioned by vicious or imprudent indulgence, or by injuries to the penis from the saddle in riding, or from falls, the improper management of catheters, &c. Both the symptoms and treatment of this group have been considered in the commencement of this section. It is proper to mention, however, that these cases may no

doubt produce consecutive changes in the anus, and thus bring on some of the other forms of spasm. In spasm of the anus from urinary irritations, the constriction of the external sphincter is generally the most severe, and even this is not commonly very hard; so that there is little difficulty experienced in introducing the finger. The strongest diagnostic mark which distinguishes spasm of this kind from that arising from disease originating in the anus, is this: in the latter case, the patient dreads the attempt at evacuation, because of the intense agony that it occasions, and the tenesmus is only indulged involuntarily; but, in the former disease, straining produces temporary relief, by distending the external sphincter, and the introduction of the finger, so far from increasing, actually diminishes the suffering.

"The sphincter externus is subject to common cramp, and this may prove very troublesome. We have seen several cases, one of which occasioned great soreness and considerable inflammation in the canal for several days after the attack. The cases mentioned by Mayo as coming on suddenly at night, were probably of this character, but when he draws the general conclusion, that 'spasmodic contraction of the sphincter is a kind of cramp,' he certainly speaks very incautiously. There can be little in common between cramp of the sphincter and the attacks coming on gradually and passing off in the same manner, nor is there any stronger connexion between the modus operandi of the two plans of proceeding which he recommends for the treatment of the complaint, to wit: a mould candle introduced as a bougie, in some cases, and a brisk cathartic in others. Cramp of the external sphincter is a rare occurrence, and happens generally in persons very liable to a like affection of the other voluntary muscles. It is relieved by similar measures. The paroxysm, in the few cases we have seen, was relieved by the gradual introduction of the finger, so as to overcome the constriction, but, in two instances, it returned repeatedly. Both of these cases were greatly relieved by the steady application of heat to the part, but one of them did not finally recover until he had been for some time under treatment for irritation of the small intestines, upon which the cramp in this and other muscles appeared to depend. In all, the constriction was very hard, and the pain excessive.

"Another form of the spasm of the anus is that which comes on without any obvious cause, either in the urinary apparatus or the anus, the integuments preserving their flexibility, and remaining unaltered, except that they are occasionally swelled a little by slight inflammation from the pressure of the stricture. Cases of this kind are those which are so often styled nervous. They occur chiefly in persons of delicate frame, sedentary habits, and nervous temperaments, and they appear to result from an unusual irritability of the anus, rendering it liable to spasm from slight causes. The attacks in this form are often intermittent, appearing at regular periods, and leaving the patient in a perfect calm during the intervals. This is the form which has been compared by Calvert to tic douloureux, and the causes of which appear sometimes to be congenital. (See Merat, Dict. des Sciences Medicales, XV. 547). The undue development of the sphincters, noticed by Copeland, Boyer, and the author just mentioned, is noticed chiefly in cases of the group of which we are now speaking. We are compelled to prefer the explanation of this development, given by the latter, to that of either of the former surgeons, as more consistent with the ordinary course of nature, and to regard this appearance as an actual hypertrophy of the sphincters from too frequent and too violent action. Like other similar nervous affections, this seems to be rendered more unmanageable by depression of spirits and strong emotions of mind. It is distinguished from the neuralgia, so called by M. Campaignac, by the excruciating pain in the anus, which is sometimes so severe as to occasion syncope, while there is little uneasiness in the urinary organs;—from spasm consequent upon irritation in the urinary organs, by the intolerable agony on going to stool, and on the introduction of the finger during a paroxysm, which sometimes produces a marked convulsion;—from cramp of the external sphincter, by the same signs:—and from most other cases of spasm, by the regularity of the attacks, or by the absence of all strongly marked inflammatory symptoms. The only form of the disease with which it is very likely to be confounded, is that produced by fissure of the anus; with which it appears to be frequently complicated, and from which it cannot be clearly distinguished by any rational sign. This difficulty is of little importance, for the surgeon can and should determine the presence or absence of fissure, in all cases of doubt, by a proper examination. (See § 11).

"In this group of cases, the various narcotic remedies employed in neuralgic diseases generally, are plainly indicated; but the degree of benefit likely to result from them, cannot be foreseen from any evidence now before us. It is probable that most of the cases in which their employment has proved successful, may have belonged to this group, and that many cases in which they are stated to have failed, may have been of a different character, so that the remedies were inapplicable to the circumstance—at all events, the details necessary to render the question a clear one have not been given, and it may be hoped that a

better diagnosis will, at some future day, remove this disease from the list of opprobria. Mr. Calvert suggests the propriety of testing the powers of quinine and carbonate of iron, in the regularly intermittent cases.

"The causes of muscular spasm, when it occurs as a symptom of inflammatory affection of the anus, are very various. The complaint may be induced by diarrhœas, strictures or ulcerations of the rectum, fissures, rhagades, hemorrhoids, or other tumours, situated in or near the canal. This form of spasm is generally distinguished from all others by the constant presence of more or less pain or uneasiness in the anus, the disease being liable to remission, but very rarely to a distinct intermission. The treatment, of course, must be various as the causes. It consists simply in the relief or cure of the inflammatory affection, or the removal of the consequent excrescence which has induced the spasm. The measures adapted to each of the causes will be found in the appropriate section of this article.

"Having thus attempted to classify the several groups of cases commonly arranged under the head of *spasm* of the anus, and, having offered a few remarks on the treatment of each group, it only remains to add one or two observations on the examination of patients, and the operations sometimes rendered necessary in most forms of this disease.

"When called to a patient labouring under spasm of the anus, it is the imperative duty of the surgeon to satisfy himself, by careful examination, and, if necessary, by ocular inspection, as to the condition of the whole anal canal, and, as far as possible, of the neighbouring parts of the rectum. He should inquire and ascertain if there is any tendency to prolapsus during the efforts at stool. He should likewise investigate the condition of the urinary apparatus, and, when necessary, the moral habits of the patient, the condition of his bowels, and the nature of his customary diet. With these lights he will be able to determine the true seat and cause of the disease, and to regulate the course of practice accordingly; but we should be very cautious in pronouncing a case to be simply neuralgic, for, in a vast majority of instances, some concealed inflammation may be detected when we take sufficient pains to examine for it. As a general rule, in all forms of this complaint, the bowels should be kept open, by diet, if possible, and if not, by gentle laxatives or the mildest enemata. No purgative containing aloes is admissible. Perhaps the best laxative in cases of the habitual costiveness of sedentary patients, is uncombined calomel, given in the least dose that will produce one or at most two free discharges, and repeated every second or third day, for a week or more, renewing the treatment from time to time until the habit is conquered. From very extensive trials, we may mention that this dose varies from three to five grains; but generally the former quantity will be found ample, after it has been employed two or three times. All highly stimulating food and drinks should be totally interdicted.

"As cases of spasm of the anus sometimes produce all the fatal consequences of strangulated hernia, tympanitis, or peritonitis (Richerand, Nosogr. Chir.), and, as many others prove at once intolerable, and incurable under medical treatment, it may become necessary to divide the sphincters, and to prevent their immediate reunion, in order to relieve the constriction and pain. All the writers agree in this recommendation; but Calvert very properly cautions us against a hasty and unnecessary resort to so severe an operation, as it is not altogether unattended with danger; and notwithstanding the powerful testimony of Boyer in its favour, it does not always effect a cure, for it has failed in the hands of several eminent surgeons. (See Fissure, § II.)

"Dilatation by bougies, so very useful in strictures of the rectum, have been opposed by many in those of the anus, because of the intense pain attendant upon their introduction. Boyer testifies that in every case in which he made the attempt to dilate by bougies, they proved either useless or injurious (Mal. Chir. tom. X.), producing, in some cases, a still more rigid contraction after every attempt, until the canal was nearly obliterated, so that even a clyster-pipe could not be passed. M. Delpech also substantiates this fact. (Prècis Elémentaire des Mal. Chir. tom. I.) Yet there is strong authority in favour of the occasional usefulness of dilatation by tents or bougies, even in cases complicated with fissure and other inflammatory affections of the canal. (See Fissure, § II.) It is difficult at present to point out the particular cases to which the plan of dilatation is applicable; but it seems to be generally conceded that even where it proves useful, the introduction of the instrument produces a very great exacerbation of pain, which often continues for several hours, and then entirely subsides. When, therefore, the introduction of a tent or bougie is not followed by considerable relief after a reasonable time, the propriety of its repetition must be very questionable, for we should then dread a permanent increase of difficulty after each attempt, and the occurrence of those evils noticed by Boyer and Delpech.

"*Bibliography—Merat.*—Art. Fissure, in Dict. des Sciences Médicales. Paris, 1816.

"*Baillie, (Mathew).*—Case of stricture of the rectum produced by a spasmodic contraction of the internal and external sphincters of the anus. Trans. of Col. of Physicians of London. V. 136. (1815).

"See also—the General Treatises of Calvert, Copeland and Mayo, on Diseases of the

Rectum. Boyer's Maladies Chirurgicales, Delpech's Prècis Elémentaires de Malad. Chir., and Bibliography of Fissure.

"§ 3. *Atony of the Anus.*—In consequence of frequent and unnatural dilatation of the anus, the two sphincters sometimes cease to contract with sufficient force, and the canal becomes permanently enlarged. The same result also happens occasionally from paralysis consequent upon concussions of the spine, and the enlargement may then continue after the spine has recovered from the effects of the injury. Among the most fertile causes of the worst forms of this affection, may be ranked the indulgence in unnatural crimes, fortunately little known in this country, but which the crowded condition of those schools of vice, our public prisons and alms-houses, are rapidly introducing amongst us.

"Slight shades of dilatation from atony of the sphincters are very common among men of sedentary habits, more particularly such as are esteemed good livers; though they are seldom made a ground of complaint, and have received much less attention than they deserve. The immediate consequences of this loss of tone are, a slight irritation of the teguments, and an increased secretion of the mucus of the canal, which sometimes produce serious inconvenience, although unattended by pain. As ulterior results, this morbid condition may determine the development of many of the more serious diseases of the part, under the action of agents which would prove harmless in a healthy condition of the anus; and these diseases may recur after a cure has been accomplished, if the atony be neglected. The complainant, in such cases, yields almost invariably to a regimen and treatment calculated to regulate the habitual action of the bowels, aided by that most powerful but much neglected remedy in irritations of this part, the local applications of cold. The best mode of applying this remedy is to throw a continued stream of cold water upon the anus; and it is much to be regretted that the apparatus for what is termed the *douche ascendante* is so seldom employed in this country. Cold ablutions, however applied, are much less efficacious.

"The worst forms of the complaint, originating from the causes already enumerated, or from tumours, or former operations on the part, are attended by permanent stretching of the teguments themselves, remaining after the sphincters have in great degree recovered their tone. Such cases yield only to the removal of the cause, to the use of astringents, or, in the most obstinate, to the excision of some of the redundant folds of the skin. (See Prolapsus Ani, § 5.)

"If the affection is the result of vicious habits, says Velpeau, the anus is strongly excavated, like a funnel; in other cases, it is salient, depressed, or irregular, but never infundibuliform. Involuntary stools and prolapsus ani are often occasioned by this kind of enlargement. When the causes which originally produced it are incurable, as in some cases of tumour and paralysis, the case is beyond the reach of art.

"*Bibliography—Velpeau.*—Dilatation de l'Anus. Dict. de Méd. edit. 2. III. 283. Paris, 1833.

"*Roche et Sanson.*—Nouvelles Elémens de Pathologie. II. 527. Art. Asthenie du Rectum. Paris, 1828."

Here we shall pause for the present, as we feel convinced that our scientific and practical readers will duly estimate the value of the preceding extract.

Were this work illustrated by plates, and improved as we have suggested, it would be one of the most instructive and standard productions of the present age; but even in its present form, it ought, in our opinion, have a prominent place in every medical library.

The London Medical
AND
Surgical Journal.

Saturday, February 6th, 1836.

PROGRESS OF MEDICAL REFORM.

Reform is now the universal theme of conversation with all the liberal portion of the profession. Every one inquires whether Mr. Warburton's intended bill is to be introduced in the early part of the present session of parliament, and what will be its provisions? It is certain that medical reform will be carried ere long, but it is doubtful when it can be brought before the legislature, as the voluminous evidence on the subject is not yet printed or ready for the perusal of the members. The subject of medical reform is one of vast importance to the public, and requires much more deliberation than many appear to think. It is, however, under due consideration, and must be disposed of during this or the next session of parliament. The numerous conflicting interests of the existing medical corporations render it extremely difficult for the most ex-

perienced legislator to frame a code of laws for the improvement of medical education and practice in this kingdom. Nothing but a code of enactments can embrace all the ramifications of the present state of medicine, unless the whole be comprised as one faculty. In such case, a single act would be sufficient. It might embrace all the rights, privileges, and immunities of physicians, surgeons, apothecaries, and obstetricians, both in public and private practice. The examples of the French, German, Austrian, Prussian, and Italian systems of medical jurisprudence, are now before the legislature, and with proper modifications are worthy of imitation. They all enforce the necessity of a comprehensive preliminary and medical education; they protect the rights of medical practitioners, and prevent the slightest infringement of them by illegal pretenders. It is evidently most conducive to the preservation of public health, that medical practitioners should be well educated, and that no person unacquainted with medicine should be allowed to undertake the treatment of disease, whenever a legally qualified practitioner can be procured. This is the tenor of the law in continental Europe. The public is secured the best medical aid, and those who afford it have their rights secured to them. It is but justice that medical practitioners, who incur great expense, and devote their whole time to the study of their profession, ought not to be infringed on by any one who chooses: and this is the privilege of the profession of the law. In that learned calling, no one is allowed to assume the privilege of advocate, unless in his own cause; and then it is generally admitted, that he has a fool for his client. This exclusion of non-professionals is not considered an outrage on the liberty of the subject; though legislators hold the contrary with regard to uneducated medical practitioners. They maintain that every man has a right to doctor himself, and have a fool for his patient; to swallow scores of Morrison's pills at a time, and to procure the attendance of empirics if he pleases. Now the present law is exceedingly unjust, in compelling the members of the medical profession to undergo a long and expensive course of study, while it allows those who are ignorant of medical knowledge, the same advantages as the learned in the practice of the healing art. In placing the learned and unlearned on the same footing, the legislature encourages empiricism, and sanctions the injury of public health to a very great degree. It was right in former times, when medical practitioners were comparatively few in number in remote parts of the country, that the pretenders of physic might be employed; but this can scarcely occur at present, when every village and parish has one or more of the faculty, and the profession is greatly over-crowded. We contend that the continental law of restricting medical practice to qualified individuals is much wiser and better than our own, and ought to be imitated by us. It enforces a much better course of general and medical education, compels every practitioner to be a doctor in medicine and surgery, as well as an obstetrician, and after he has obtained his title, he must pass two years as clinical assistant in a public hospital, and undergo a most rigid examination, before he receives a license to practise. Let us contrast this system with the one year's attendance on hospital, or the eighteen months' attendance on dispensary practice, during the period of study required by the Royal College of Surgeons, and Society of Apothecaries. in this metropolis; and consider the competency for private practice of foreign and national surgeons. Nothing can be more absurd than compelling students, whose days are wholly occupied in attending lectures on the different medical sciences, to attempt clinical study at the same time; and the result is, that this most important branch is very superficially prosecuted in this metropolis, both by teachers and pupils. The time for this study ought to be as on the con-

tinent, after the student is grounded in theoretical knowledge of all the medical sciences; that is, when he is competent to appreciate the practice of medicine and surgery. The legislature ought to enforce a uniform system of general and medical education throughout the kingdom, and unite the whole faculty by the same enactments. There ought to be one code for the whole profession, as in all other countries. The collection of all laws relating to the study and practice of medicine into one or more acts of parliament, would instruct the profession and public as to their respective relations towards each other. The existing laws are scattered through so many works, that until a recent period, none but a lawyer or a medical jurist was acquainted with them. It is obvious that every medical practitioner ought to know them, and he had no opportunity until lately, when they were collected from a vast pile of common and statute law-books, in two of our works on medical jurisprudence.

The time for partial legislation for the different sections of this country, is nearly at an end. The same legislation must apply to all parts of the same kingdom. We feel convinced that Mr. Warburton will, as he did in the anatomical act, legislate for the whole profession in the British dominions; and we have the fullest confidence that his liberal and enlightened views will lead him to frame a law that will be most beneficial to the public and the medical profession, and transmit his name to posterity as one of the best friends to humanity, of the age in which he lived. He has thoroughly examined the inmost recesses of monopoly — defects and abuses in the medical corporations of this country; he has carefully compared the polity of the profession in this and all other civilized countries; he has made himself master of the subject, and is the most competent individual in parliament to modify the laws relating to our profession.

The friends of reform must not be impatient, or expect that their affairs are to take precedence of all others at the commencement of parliamentary proceedings. Three centuries have elapsed since the enactment of laws relating to medical practice, and a few weeks' or months' delay in reforming them, is no very great period, nor should it excite impatience on the part of those who desire a change.

THE METROPOLITAN UNIVERSITY OF LONDON.

The intentions of the government with respect to the Metropolitan University of London, will be laid before parliament in a short time. The institution is to be founded on the broadest basis of liberality. We are happy to inform our readers that Mr. Warburton, the only parliamentary representative of the medical profession, (corruptionists excepted), has had several interviews with the Right Hon. the Chancellor of the Exchequer on the subject; and from this we infer, that the interests of the great body of our profession will be duly regarded in the construction of the new national institution.

THE MEETING AT THE CROWN AND ANCHOR.

The "Medical Gazette" as might have been expected, has endeavoured to throw odium on the Great Meeting at the Crown and Anchor—has even contradicted itself—eaten its own words—in the short space of one week—with his usual liberality, our veracious and respected contemporary has made the meeting the medium through which he might vent his spleen and malignity on particular individuals.

It is not with the meeting itself that the Editor finds fault, though even as far as that is concerned, he has admitted into his pages a letter from an anonymous correspondent, who professes to be a medical student, and was led by curiosity to attend the meeting, which he denounces as indecorous and unruly. He is probably one of that small *clique*

of disappointed gentlemen who endeavoured to produce disturbance by raising objections to resolutions which the great body of the meeting supported; we have reason to know that such as the writer of the letter were grievously disappointed; that order was well maintained; so disappointed indeed, as to be carried away by temper to state that which is not true, and to libel the body of medical students, of whom they and he profess to be members. "Call you this being backed by our friends?"

We have said that the Medical Gazette has made the meeting a medium, through which it might vent its private pique upon certain individuals—spouting its brilliant wit on "grinders" and "groundlings," and even merrily sporting with the cares and sorrows of a departed genius, who, whatever might have been his weaknesses, deserves at least a better fate than that of the howling of jackalls over his remains. We envy no man the pleasure of raking up the frailities of human nature, to make them the object of ridicule. Nothing need be said of the statements regarding Mr. Wakley; everybody knows the reason for which the editor of the Green Journal ever attacks him, be it right or wrong. There is another individual, however, which it would be well, as our contemporary is so fond of seeking into remote causes, to inquire why he is assailed. Is not *Mr. Liston* in the opposition school to St. George's? Who is the editor of the Gazette? But this is not *all* the reason of our contemporary's malicious feeling towards that eminent surgeon. No—a month has not elapsed since we, in a matter regarding that gentleman, proved incontestibly, that the Gazette had been guilty of wilful falsehood; we proved this—and could he whose affairs had been the origin of that shame and defeat, ever be forgotten when an opportunity presented itself of abusing and maligning him? Of a verity the Gazette must be in a hopeful state, when it can condescend to falsehood and vulgarity, for the purpose of gratifying private animosity. Who can wonder that its editor dare not avow himself? Who can wonder at letters from individuals denying the Editorship—when it has sunk so low in estimation? The late denials regarding this matter put us in mind of the shuffling of a party of school-boys, who, when in terror of chastisement, make a round robbin to screen their delinquencies.

LONDON MEDICAL SOCIETY.

Monday, February 1, 1836.

DR. WHITING IN THE CHAIR.

The Nervous System—Anomalous Affection of the Skin—Homœopathy.

After the reading of a paper by Mr. Marian on the nervous system, in which he attempted to shew, in opposition to the theories of Sir C. Bell and Magendie, that the anterior portion of the spinal column, with the nerves therewith connected, are subservient to sensation, and that the posterior portion, with its nerves, influenced muscular motions—

Mr. Kingdon asked the opinion of the Society as to the best mode of procedure in a case which he now had under treatment. The patient was a gentlemen aged 87, who had suffered from shingles on the right side: when the inflammatory period of the disease had terminated, instead of drying up, a number of ill-conditioned sores remained about the right shoulder; these were attended with considerable pain, and a sense of weight. After employing constitutional treatment and local applications to the affected parts, they soon healed, but the patient still continued to suffer from the pain and weight, which comes on in paroxysms—no medicine or remedy which had been applied afforded more than a very short relief—cupping and blistering relieved him for two or three days. Slight pressure gives him pain, but there is none if the pressure is hard; the weight he complains of, just above the inferior angle of the scapula, seems to him as though the atmosphere pressed on that part of the body only. There had been no weight or pain previous to the appearance of the shingles, but six or seven years ago he had suffered from pain about his hip, which no one seemed to understand, and for which he obtained no relief from various medicines he had employed. He exerted the leg and got well. He had had no pain since then.

Mr. Headland thought the pain was referrible to some obscure disease of the liver, and that the shingles were not the primary affection.

Mr. Kingdon had attended to the state of the liver; the plan he had adopted would tend to relieve any disease of that organ; he should have thought that had the liver been affected, some other symptoms would have presented themselves. He had been told by a physician of some note, that the sort of pain and weight his patient laboured under, were a common sequelæ to shingles;

he considered that these symptoms were dependent on the impression left on the extremities of the nerves by the ulcers, which were of the most painful kind.

Dr. Leonard Stewart thought it possible the pain might be rheumatic, and recommended colchicum.

HOMŒOPATHY.

Mr. Headland in bringing this subject before the Society, remarked that several patients of his had lately applied to homœopathists, and he had known instances in which physicians of eminence had advised their patients, after they had been treated in the "regular" way without benefit, to give homœopathy a trial.

Mr. Kingdon said that the system of homœopathy was advocated by many influential commercial men in the city; indeed it was becoming almost a mania among many of them. He knew an instance of a gentleman of some consequence in the city, who had suffered for a long time under an eruptive disease dependent on dyspepsia; the treatment he had undergone had never succeeded in permanently eradicating the eruptive disease. He, however, went on the continent, where he fell under the homœopathic system, and the old gentleman derived great benefit from the plan, probably from the system of diet, and the absence of large doses of medicine; he returned to London, and brought with him a number of homœopathic books, and he insisted that his medical man should treat his family on the homœopathic system, or that he must discontinue his attendance. The practitioner could not conscientiously adopt the plan required by his patient, and consequently he has lost the family. Another case had fallen under his (Mr. K.'s) notice, and that was of an old schoolfellow and patient, who had been treated on the system during a visit to the continent, and he was now quite an advocate of it. Mr. K. thought it was no degradation to the profession, that it should be employed in the investigation of the homœopathic system; it could not, at all events, be the offspring of ignorance: the names attached to it bore sufficient evidence of that assertion.

The President had spent some short time in investigating the system, and had read some of the books published by Hahnemann. He had also given a homœopathist the opportunity of trying his system on a number of poor patients, but this the gentleman refused, alleging that he should decline to try the effects of his system on them, as he might not succeed so well with English as with German constitutions. He (Dr. W.) himself had been treated by one of the believers in the system, for an ailment which he had some time suffered under; he was ordered the 3000th part of a grain of sulphuret of mercury once a week! He considered the system to be nothing better than quackery.

Mr. Kingdon could not think it should be so stigmatised; the men who advocated it were of high character.

After some further conversation, the Society adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, January 30, 1836.

DR. ADDISON, PRESIDENT.

Cases of sudden Death, in which the Symptoms during Life did not correspond with the Post Mortem Appearances—Homœopathy.

Dr. Uwins related a case which had lately occurred in his practice, and which he thought would be interesting from its being an example of the absence of symptoms during life to correspond with the post mortem appearances. The case was that of a child to whom Dr. U. had been suddenly called, as it was apparently in high danger; he found the little patient labouring under all the symptoms of the disease which is termed water stroke. The child was about two years of age, of rather a strumous habit, and had cut the whole of its teeth; the symptoms which now presented themselves were strabismus, attended with a peculiar lifting up of the eyes; the thumbs were directed internally, and there were convulsions, which continued more or less until the child died, which was in the course of a few hours. Previous to this sudden attack, the patient had been in very good health; its diet, &c. had been regulated by the medical attendant of the family, the members of which had become particularly careful of this child, from having lost one of their other children some time since with hydrocephalus.

On the post mortem examination, the external aspect of the brain presented nothing remarkable, except that it was more than commonly developed. The ventricles did not contain more than the usual healthy quantity of liquid. On cutting across the left hemisphere, just above the corpus callosum, there was a remarkably well defined appearance of disease bearing the chief character of *ramolissement du cerveau*, a well marked margin surrounding it; the diseased part was not exactly in a state of fluidity, neither was its colour altered; but it bore a relation to the healthy portion of brain, something like that which is observed between scirrhus and open cancer. The membranes and base of the brain were perfectly healthy. During life, there was no paralysis; one side was not affected more than the other. The right hemisphere of the brain appeared to be taking on some of the characters of the diseased appearances affecting the left. The other parts of the body were not allowed to be examined.

Dr. JOHNSON did not consider the disease in the brain to be the immediate cause of death, or at all events there was some other organ of the body affected, which had brought this state of the brain into action; irritation of the intestinal tube often produced symptoms of hydrocephalus and sudden death. He thought it might be fairly put to the Society, whether these appearances in the brain, in this case, were alone sufficient to account for its sudden fatal termination.

Dr. UWINS thought the fact of the child being under the *surveillance* of a discriminating and experienced practitioner, who considered the child was going on well, previous to the sudden attack, might be taken as evidence against the opinion expressed by the last speaker.

The PRESIDENT did not consider the case was out of keeping with many of those anomalous affections of the brain met with in adults, who have been previously in good health, but died suddenly in convulsions; and on examining whom chronic abscesses of the brain were found to exist. The disease in the above case was latent, until there was some disturbance of the circulation, when convulsions came on ending fatally.

Mr. VERRALL had seen a case which bore some analogy to that related by Dr. Uwins, inasmuch as the symptoms during life did not indicate the appearances observable after death. The patient was a young man, aged 27; nine years since, one of his legs was amputated; this was mentioned, as it might have some influence in disturbing the equilibrium of the circulation. The patient had laboured for some time under acute rheumatism, which had affected the heart. He was a dispensary patient, and the night before Mr. Verrall saw him, he had been taken suddenly worse with pains in the head; a gentleman went to see him from the dispensary, who ordered him leeches to the head. When Mr. Verrall saw him the next day he still complained of pain in the head. The application of the leeches was followed by immense swelling all over the head and face; his pulse was full and hard, and Mr. Verrall would have taken blood; but as the bowels were much confined, purgatives were administered, and the next day the patient was better. He went on for about a month, without any symptoms of acute disease manifesting themselves. He occasionally complained of pain about the head, and giddiness, when he was sitting up; but these symptoms were always relieved by purgation. At the end of a month, he was suddenly taken ill in the night, and died in a very short time; coma and dyspnœa came on just before death.

On examining the body after death, the thoracic and abdominal viscera were perfectly healthy. On removing the dura and pia mater, there were found a great effusion of blood over the entire of the brain, and which seemed to have existed for some time. All the ventricles were completely filled with blood; the arteries of the brain were healthy.

The subject of homœopathy was afterwards brought forward by Dr. Uwins, who considered there must be some mixture of truth with the errors belonging to that system, and inquired whether it would not be well for the Society to endeavour to get at the truth; and whether it was not as worthy its attention as the subject of mineral magnetism. He wished to know if any member had had any experience in the homœopathic practice. He believed the great advocate of homœopathy in Paris, Dr. Quin, was a man of the most determined character; that he would sift a system to the bottom, and not be led away by imagination, or charlatanism. He (Dr. Uwins) had been in consultation with Dr. Darling in the case of a child, in which it was thought advisable to give the liquor ammoniæ acetatis; and Dr. Darling had recommended doses of *three minims* to be exhibited, asserting that he had found more diaphoretic effect from such doses than from larger.

A very amusing discussion on the subject of homœopathy followed. Dr. Johnson considered the whole virtue of the system to consist in doing nothing. Dr. Chowne had heard of a homœopathic recommending his patient to throw a grain of calomel into the Thames at Richmond, and to drink the water at Gravesend.

Other gentlemen illustrated the system by similar anecdotes, after which the Society adjourned. Dr. Stewart's paper on the doses of medicine, was given out from the chair, as the subject to be brought before the next meeting.

AMERICAN CLINICAL REPORTS.

Clinical Reports of Cases treated in the Medical Wards of the Pennsylvania Hospital. By W. W. Gerhard, M.D., Resident Physician. (Part III. Diseases of the Brain and its Membranes.)

WE extract the following from our able contemporary, the American Journal of the Medical Sciences, Nov. 1835:—

Tuberculous Meningitis—Tubercles in Lungs and Bronchial Glands, &c.—Charles ——, a negro, æt. 22, seaman, unmarried, entered July 31st, 1834. Intelligence very obtuse at admission, but could still give some account of his disease. Intense cephalalgia for the last week while on board of a vessel; restlessness; heat of skin; delirium; was purged with salts, but under no regular medical treatment.

After his admission, insomnia; cephalalgia increased; eyes injected; expression of wildness; heat of scalp. Delirium so violent as to require him to be removed to the

cells on the 7th of August. On the evening of the 7th answers still obtained; intelligence very dull; rigidity slight in both arms, nearly equal; pupils dilated, especially the left; face not distorted.

Treatment.—Copious local depletion, by cups to the head; blister over the scalp three days before death; solution of tartarized antimony. Death 9th, at 11, A.M.

Autopsy, August 10th, eighteen hours after death, at five, a. m.—Exterior.—Moderate emaciation; rigidity of extremities; cuticle removed by a blister on back of the neck.

Head.—Blood rather abundant on the exterior of the dura mater; longitudinal sinus filled with a firm fibrinous coagulum; liquid blood in the sinus of the base; arachnoid moist; pia mater much and equally injected in the small vessels, it is easily detached from the convolutions, and is neither thickened nor granulated. *Base of brain.*—Left fissure of Sylvius filled with a band of firm semi-transparent cream-coloured substance, in which are deposited a multitude of transparent granulations, the largest of the size of a small pea. The band surrounds the vessels, and is detached with the pia mater; it extends through the fissure of Sylvius, and terminates about the level of the corpus callosum. The right fissure is filled with a substance precisely similar in every respect to that described, but a little less abundant. The pons varolii, optic nerves, and the inferior surface of the anterior and middle lobes of the cerebrum and of the cerebellum, are covered by numerous granulations, deposited in a thin layer of the yellow substance. The cerebral substance beneath the granulations in the fissures and on the pons, is softened in the depth of half a line to a line. Cortical substance of cerebrum rosy; medullary more abundantly dotted with minute points than usual. Ventricles containing three ounces of milky serosity, central parts pulpy, not diffluent, of milky whiteness. Optic thalami soft on the surface; corpora striata firm, moderately injected. Plexus choroides moderately injected.

Medulla spinalis.—Arachnoid in superior third, dry, a little rough to the touch, without distinct granulations; the inferior portion retains its shining moist appearance. Consistence good; injection moderate.

Thorax.—Left lung adherent at summit, where there is a mass of crude yellow tubercles, of the size of a millet seed to that of a large pea, surrounded by gray granulations deposited in the substance of the lung, which is permeable to the air, and not much engorged with blood. Small tubercles are scattered throughout the lobes. A bronchial gland in the lower lobe of the size of an almond is converted into tuberculous matter, in part caseous and in part soft. Numerous granulations beneath the pleura, covering the whole surface of this lung, none beneath the costal pleura. Right lung not adherent; tissue permeable to the air; granulations numerous beneath the pleura and small tubercles, disseminated through the lung. Bronchi pale. Bronchial glands more or less completely replaced by tuberculous matter. *Heart* of moderate size, firm; valves natural; large coagulum in the left ventricle; a drachm of serosity in the lateral ventricles.

Abdomen—Stomach.—Contents not noted; mucous membrane of natural thickness and consistence; mammillated along the small curvature; no bright injection.

Small intestine contains a little yellow liquid. Mucous coat pale, of good consistence. Glands of Peyer pale, and slightly elevated; one near the valve contains a little tuberculous matter. *Mesenteric glands* small, not tuberculous.

Large intestine containing a thin liquid, Mucous coat of a pale slate colour in the cæcum, and firm. It is pale, but rather soft; in the rest of the colon very thin, and spotted with little dark circles, an eighth to a quarter of an inch in diameter, without alteration in thickness.

Liver rather large, dark red, firm, bile abundant, some tuberculous granulations in the peritoneum covering it. *Spleen* firm, but full of gray granulations. Kidneys firm.

Hospital Reports.

NORTH LONDON HOSPITAL.

Case of Erysipelas, in which the Extract of Belladonna was employed with remarkable effect.

A PATIENT, a female, aged 32, who had been discharged from the hospital on the 2nd of January last, on her recovery from a severe attack of erysipelas of the scalp and face, was again admitted, on the 21st of January, under the same surgeon—Mr. Liston. It appeared that she had been very well from the 2nd to the 20th of January, on which day she caught cold by going out thinly clad, the consequence of which was an attack of her old complaint. On her admission, the whole face and scalp was much puffed up, and exceedingly tense; her eyes were completely closed; pulse 110; tongue covered with a thick yellow fur; bowels open from medicines; her manner was restless and wild, and she suffered under a morbid acuteness of hearing. Fomentations were employed, and tartarized antimony, in half-grain doses, in saline julep, were given every four hours. On the following day, the report states that she passed a restless night, and that the pain is more of a smarting character; pulse 100; tongue furred, moist. A mixture, containing one grain of the extract of belladonna

and ℥ xvj of water, was ordered, two tablespoonsful to be taken every three hours. She rapidly improved from this time, and was quite convalescent on the 24th.

ON THE ACTION OF TARTARIZED ANTIMONY.

To the Editor of the London Medical and Surgical Journal.

Sir—My attention was directed to the perusal of a letter by Mr. Moses, in the Medical and Surgical Journal a week or two ago, designated "An Explanation of the Action of Tartarized Antimony on physiological Principles," which, I must own, ended with great disappointment; I had expected to find something like an explanation of the physiological action, of the *modus operandi* of this powerful therapeutic agent as an emetic, purgative, and diaphoretic, but I there discovered only that it is a most "hurtful substance to the animal economy," and that, as such, in large doses, it excites "nature" to get rid of it as quickly as possible, by vomiting, in smaller doses, by the intestinal canal, and in still smaller doses, by perspiration. The conclusion to which Mr. Moses has arrived, in reference to the tartarized antimony as an emetic, &c., is by no means satisfactory, and I would submit to his notice a few observations, not substituting any explanation of my own.

If tartarized antimony, being "hurtful" to the animal economy, excite vomiting, and if vomiting take place only from the pernicious effects of the emetic substance, why should not everything "hurtful" to the animal economy be rejected in a similar way—by vomiting, and vomiting be the inevitable result of the admission of such pernicious substances into the stomach? We know, from observation, that there are several substances which are "hurtful to the animal economy," and produce very intense effects upon the body previous to death, even without causing vomiting; we know, too, that several emetic substances which will produce vomiting, if given in large doses, are not thrown off by "nature observing the most rigid economy," through the medium of that "mild emunctory"—the perspiration; in fact, that many "hurtful" substances, if given in less quantities than will produce vomiting, do not *necessarily* pass off by the intestines or perspiratory organs, by "nature directing her powers" to the intestinal canal, or to the surface, and with the least "expenditure of vitality."

Mr. Moses lays great stress upon "nature" (having used this term not less than half a dozen times in his short letter), in explaining the action of tartarized antimony physiologically; he observes, "Nature, throughout all her laws, observes the most rigid economy, and this fact appears to be well illustrated in the action of tartarized antimony on the living animal." I should very much like to have Mr. Moses' interpretation of the terms "nature" and "vitality," as they are used in his explanation; if he there means that vomiting is the invariable effect of the administration of any substance, like tartarized antimony, "hurtful to the animal economy," and that every emetic, in a smaller dose than is sufficient to produce its emetic effect, produces purgation, or diaphoresis, then, I conclude, that the knowing that several decidedly "hurtful" substances do not produce vomiting, and that other "hurtful" emetic substances, given in less quantity than will produce vomiting, do not *necessarily* pass off by the intestines, or by perspiration, must induce us to look for a more plausible explanation. Vomiting is an effect—*sui generis*, as it were—of an emetic substance; and, perhaps, the only pernicious effect which some emetics, strictly emetic substances, are capable of producing, is—vomiting. Tartarized antimony is classed amongst the list of medicines called *emetics;* and we ought to bear in mind the part of the generally-received definition of emetics, which refers their action to other distinct causes than the stimulus of quantity, or the influence of any nauseous taste or flavour.

"That it operates," writes Dr. A. T. Thomson, "through the medium of the nerves, has been demonstrated by injecting a minute portion of its solution into the jugular vein; into the cavity of the pleura; into the tissue of the muscles; and into the anus of a dog. In all these cases vomiting was produced."* Why should "nature exert her strength to get rid of" *by the stomach*, a substance injected into a vein, into the cavity of the pleura, into the muscular tissue, or into the anus? Surely this is not "strict economy," for, according to this explanation, "nature" is vainly endeavouring to get rid of a substance through a decidedly inefficient medium. We must look for some other cause of the interesting action called vomiting, and of the *modus operandi* of tartarized antimony, and, with it, of all other emetics.

In conclusion, allow me to add, that it is a particularly interesting and important subject; and were I sure there would be room in your valuable Journal, I might make a few farther observations: but suffice it to say, that the reader may find a long discussion of the different theories which have been formed with respect to the immediate cause of vomiting, in Dr. A. T. Thomson's Materia Medica, vol. 2, p. 185,

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* Dr. A. T. Thomson's Materia Medica and Therapeutics, vol. 2, p. 215.

et sequent. And, to vindicate my writing the few observations I have, I direct his attention to the uncertainty of the knowledge of the *modus operandi* of emetics, as displayed in the remark following Dr. Thomson's definition of that class of remedial agents:—"Emetics may be defined as substances which cause the ejection of the contents of the stomach by the mouth, independently of the stimulus of quantity, or of the influence of any nauseous taste or flavour." This definition is a modification of that of Dr. Murray, who adds, "or of any narcotic or acrid power;" but as the real principle which enables emetic substances to produce their effects is unknown, it is going, perhaps, too far to affirm, in a definition, that this is neither *narcotic* nor *acrid.*

London, Jan. 23, 1836. MEDICUS.

NEW CARRIAGE FOR THE REMOVAL OF INVALIDS.

WE were much gratified last week, at the North London Hospital, by the inspection of a carriage for the removal of invalids or persons suffering from accidents. The vehicle is of extremely light and tasteful proportions, possessing at the same time unprecedented convenience. The body detaches from the wheels, and forms a sort of hand litter, which may be carried into the narrowest passages of a house. The mattrass being then lifted out, forms an armed chair, which may be placed by the bed-side and the patient thus lifted and conveyed in safety and comparative ease. Shafts for a horse can be attached or removed at pleasure. We are informed that this humane contrivance (together with another of similar construction, which has been for some time used in conveying to this hospital the sufferers from accidents at the works of the London and Birmingham railway, near Primrose Hill), was presented by Henry Philip Hope, Esq., of Connaught Place, whose deeds of benevolence are everywhere felt and acknowledged. We are of opinion that vehicles similar to these ought to be attached to all our hospitals, and that they would be found of infinite service at many of the police stations.

Librarian to the School of Medicine in Paris.

Several physicians have solicited the situation of Librarian to the School of Medicine, vacant by the death of M. Mark-Mahon: these are MM. Bayle, Dezeimeris, and Jourdan. M. Littré, who was one of the candidates, has retired. The three other candidates have numerous pretensions to the appointment, either from the works they have published, or from the direction of their studies. M. Bayle, sub-librarian for twelve years, has published, amongst others, several volumes of the *Bibliothèque de Thérapeutique;* M. Dezeimeris, sub-librarian for four years, his Dictionary of Medicine, and numerous articles of bibliography in the *Nouveau Dictionnaire;* M. Jourdan, *Homme de Bibliotheque:* he possesses the necessary qualifications in a high degree; laborious and studious habits, vast erudition, a knowledge of different languages, attest the variety and depth of his studies.

—o—

Fatal Constipation caused by a Knot of Tænia.

Mr. Parkinson, of Milverton, relates a case of the above description in a recent number of the Medical Gazette. The patient was a boy four years of age, and was first seen by Mr. P. on Wednesday, the 13th of January, in consequence of the patient's bowels having been confined for three days. Every means (save an enema, that being objected to by the parents) were tried without effect, and he died on the Monday following, after the most acute sufferings; his symptoms at last presenting all, but the local one, of strangulated hernia. A few minutes before his death, his mother found he had passed something in the bed, which proved, on inspection, to be five tænia, inseparably knotted together in the form of a hard ball.

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Professorship of Materia Medica in King's College.

Dr. George Gregory has been appointed Professor of Materia Medica at King's College. Dr. Webster was not allowed to stand as a candidate, because he is *a member of the Established Church of Scotland! ! !*

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College of Physicians.

We understand that the first evening meeting will be held on Monday, February 22, when Sir H. Halford is expected to read a Paper.

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LITERARY NOTICE.

In the press (and nearly ready for publication),

On the Crowing Inspiration of Infant Children, and Illustrations of the Pathology of the Nerves. 8vo., plates. By Hugh Ley, M.D., Physician-Accoucheur to the General Lying-In and the Middlesex Hospitals; and Lecturer on Midwifery at St. Bartholomew's Hospital.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

ROYAL

THE

London Medical and Surgical Journal.

No. 3. SATURDAY, FEBRUARY 13. Vol. I.—(1836).

ESSAY

UPON SOME POINTS OF THE

HISTORY OF CATARACT;

Thesis presented to, and sustained before, the Academy of Medicine of Paris.

By THEODORE MAUNOIR,

OF GENEVA,

Doctor of Surgery; Member of the Medical Observation Society.

TRANSLATED

By ALEXANDER THOMSON, M.B.

Of St. John's College, Cambridge.

"Observer la nature, rassembler beaucoup de faits pendre leur ensemble pour principes ..... Qui sommes nous pour nous detourner de cette voie."—Bichat, *Œuvres Chirurg. de Desault.*

8. *Prognosis.*—These general results being indicated, let us examine some points relative to the prognosis, and let us pass successively in review the influence of age, sex, of the simple or double operation, and of some of the accidents complicating it.

Sect. I. *Age.*—Relatively to the age, the patients may be divided into three series:—

The first contains 44 individuals, aged from 20 to 59 years; the second contains 40, aged from 60 to 69 years; and the third contains 27, aged from 70 to 82 years; the men and the women being distributed in almost equal numbers in each series.

In the first series 69 operations have been performed: 39 have succeeded, and 28 subjects have recovered the sight; which gives for the patients the ratio of 28 to 44, very nearly equal to the ratio of 5 to 8; and for the eyes, the ratio of 39 to 69, which differs very little from the general ratio of 5 to 9.

In the second series 64 operations have been performed; 34 with success, 27 patients having recovered the sight; which gives for the patients the ratio of 27 to 40, a little more favourable than the ratio of 5 to 8; and for the eyes, the ratio of 34 to 64, a little less favourable than 5 to 9.

Finally, in the third series 44 operations have been performed: 19 have succeeded, and 14 of 27 persons affected with cataract have recovered the sight. Here the ratio 14 to 27 is less advantageous than the ratio 5 to 8, and for the eyes the ratio 19 to 44 is still more unfavourable.

Thus, then, the age from twenty to sixty-nine years has not appeared to yield any notable difference in the proportion of the successes; while in that from seventy to eighty-two, the results have evidently been less satisfactory, whether the eyes or the individuals be considered isolately: and yet the loss of a part of the vitreous body—an accident of which the troublesome influence is incontestable, has not occurred more frequently in this series than in the other two*.

* There is another circumstance that I have not mentioned, and to which must be attributed the greater proportion of non-success at a very advanced age: I would speak of the withering of the cornea. In a small number of patients, and particularly among the old persons, that membrane remains puckered, and even altogether concave anteriorly, after the extraction of the cataract, in place of resuming its convex form, as most ordinarily occurs. This accident is extremely grave, and this is easily conceivable, since it is opposed to the exact apposition of the edges of the incision—a circumstance indispensable to the success of union by the first intention, which itself is the condition essential to the success of the operation. I cannot, unhappily, give upon this subject more positive details, my notes not containing any sufficiently precise. In a case of this kind, my uncle, Professor Maunoir, caused his patient to lie down horizontally, filled with tepid distilled water, the ocular concavity formed by the prominence of the periphery of the orbit; and opening very slightly the eyelids, saw the shrivelling of the cornea soon disappear, by means of the introduction of the water, which replaced thus the loss of the aqueous

Sect. II. *Sex.*—Relatively to the influence of sex, the following is what we learn from the results:—

One hundred and fifteen subjects have been operated on—59 men, and 56 women. On these 115 subjects, 179 operations have been practised, of which 90 upon men, 89 upon women.

Seventy-three subjects have recovered the sight—40 men, and 33 women*.

Ninety-seven operations have succeeded—52 in the men, and 45 in the women†.

Seventy-two operations have had no success—32 in the men, and 40 in the women.

Ten have had a semi-success—6 in the men, and 4 in the women.

Thus, in all respects, the results of the operation have been less favourable to the women than to the men. In studying the progress of the cataract, we have already seen the first, in another point of view, worse lotted than the men.

In reflecting on the different circumstances in which are found the men and the women who undergo the operation for the cataract at La Charité, I had at first thought that the necessity in which these last are placed of mounting, in order to regain their bed, a staircase communicating with the open air, might very well have something to do with the greater proportion of non-success as regards them: but I confess that I very much doubt now of the reality of this cause, on seeing, in a *Mémoire sur la Cataracte*, published by M. Lusardi, that the successes obtained by that oculist have been likewise rather less numerous in the women than in the men. Indeed, it is clear that here nothing similar to what occurs at La Charité, owing to the disposition of the wards, can have existed.

Sect. III. *Simple, or Double Operation.*—A very important and often-discussed question is the following:—Are there more chances of success for each eye, when both are operated on in the same day, or when the operation is only practised on the second eye, after the cure of the first? Here, as always, opinions are divided. M. Demours pretends that a distinction must be made in this question. According to him, the double operation performed on the same day is more advantageous for the surgeon, because it is very rare to see both eyes lost, and because it suffices for retaining intact the reputation of the operator, that the patient shall have recovered the sight on one side only; but he thinks that the operation of the second eye, performed after the cure of the first, presents more favourable chances for the patient. This last opinion, as is manifest, is alone scientific. Professor Dupuytren is of the same opinion. The following is the manner in which Doctor Sanson expresses himself in the article *Cataracte*, in the *Dict. de Méd. et de Chir. Pratiques*:—"The practice of M. Dupuytren has placed it beyond *all doubt*, that when the two eyes are operated on the same day, the inflammation is more violent than when but a single eye is operated on, and that almost always one of the two affected with that inflammation is lost, and in some measure saves the other at its expense, while both may be more easily saved, by operating on them successively." Were the fact such as indicated by M. Sanson, it must be confessed that an eye lost in order to save the other, is a revulsion dearly purchased; but such is not the opinion of M. Roux: this professor thinks, on the contrary, that by operating on both eyes the same day, there are a few more chances of saving both, than if the second were only to be operated on after the cure of the first.

In presence of these imposing authorities, let us see what is said by the facts. Various circumstances, which it is useless to relate, caused, frequently enough, and in spite of his marked preference for the double operation on the same day, Professor Roux to operate on his patients on one side only; that is what has happened in forty-eight of the persons affected with cataract, whose history I have drawn up. Of these forty-eight operations, twenty-three have been followed by complete success; to these twenty-three must be added, I think, a case of amaurosis, which existed in an evident manner previously to the operation, and of which the result, as operation, was as beautiful as possible; there might still be added rigorously thereto, the case of that man who died on the fifth day, and whose eye presented no trace of inflammation—this would then be a little more than the half successful. But, to be more strict, let us withdraw these two facts from the total number, and in forty-six operations we shall have twenty-three cases of success, twenty of want of success, and three of semi-success. Now, in sixty-four other patients, the extraction has been practised on both sides in the same

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humour. The patient, who was an old man very much advanced in age, was dressed as usual, and was perfectly cured. The surgeon who may fear the injurious effects of the presence of the water in the interior of the eye, should call to mind that it scarcely differs from the aqueous humour; and, what is still more encouraging, that the experiment with it has been made a great many times. The oculist, Forlenze, who was reckoned very fortunate in his operations, had adopted a general method of withdrawing from within the fragments of the cataract, by means of injections of tepid water into the interior of the eye.

* For the success to be proportionally equal, it would require thirty-eight women in place of thirty-three.

† For the same reason, it would require fifty-one women in place of forty-five.

day. Of these 128 operations, seventy-four have been followed by complete success, forty-seven have completely failed, and seven have had but a half success. We have then, definitively, 74 in 128 as the proportional number of successes, that is to say, a result a little more advantageous than in the preceding series. Thus, the fatal influence of the double operation, practised on the same day, is far from being put out of doubt.

Sect. IV. *Accidents of the Operation.*—We have seen above, that certain accidents sometimes complicate the extraction of the cataract; let us see what has been their influence upon the definitive results.

The first, and the slightest, doubtless, is the puncture of the skin, or of the mucous membrane of the internal angle of the eyelids. I should not even have spoken of it, if I had not heard several surgeons say that, although slight, this lesion in the immediate vicinity of an organ so delicate as the eye, and which has just undergone an operation, might have the great inconvenience of determining an inflammatory state, or aggravating it in the case of its development. All that is rational, indeed, but here, as so frequently, experience by no means confirms what reasoning had advanced. The following is the proof of it. I believe that I have never, or scarcely ever, omitted to note this accident when it had occurred; for, in twenty-seven operations in which I find it indicated, sixteen have had a happy result; which gives the ratio 16 to 27, a little more favourable than the general ratio of 5 to 9.

A second accident, which sometimes supervenes during the section of the cornea, is the *lesion of the iris.* This membrane is ordinarily cut in a portion of its breadth, either towards the external parts, when the knife penetrates, or towards the internal parts, when it quits the eye; sometimes likewise below, by the middle of the cutting edge of the instrument. There results therefrom a pupil more or less notched on the side of the lesion, and most frequently this notch persists after the cure. Were it only in the point of view of this slight deformity, the wound of the iris is evidently an imperfection in the operation; but is it a real inconvenience, and has the lesion of this so vascular, so sensible organ, a troublesome influence upon the definitive result? Are there, in other terms, more eyes lost in the cases in which this accident occurs, than in those in which it has been avoided? The authors who have written upon the causes that lead to the failure of the operation for cataract, have not failed to make the lesion of the iris play a part. Ware points it out as dangerous. Mr. Sanson, in the article already quoted, expresses himself thus:—"The blood that escapes as soon as the iris is wounded, speedily fills the anterior chamber of the eye, and masks the parts so much, that henceforth it is only at hazard that the instruments are conducted for the completion of the operation; and, supposing that this has been capable of being terminated, there always results, from the lesion of the iris, an inflammation more or less serious, the consequences of which are, either a deformity of the pupil, or secondary opacities injurious to the vision, or hindering it altogether."

I cannot in any manner participate on this point in the opinion of Ware and of Sanson. I have observed twenty-one times the lesion of the iris; and in these twenty-one operations, thirteen have been followed by success, which gives the ratio 13-21sts, more favourable even than the general ratio 5 to 9*. As to the effusion of blood in the anterior chamber, it was not in any case sufficiently abundant to hinder the termination of the operation; far more, there were a certain number of them in which there did not flow from the edges of the incision a single drop of blood. This fact is, moreover, well known; it is known that in circumstances apparently similar, and without any account being able to be given of this difference, sometimes the section of the iris gives rise to a discharge of blood, sometimes is altogether exempt from it. It would be curious to seek which of these phenomena is the most frequent. I regret having in general confined myself to noticing the lesion of the iris, without indicating whether there was or not sanguineous discharge; what I can say is, that in eight cases in which I have not made that omission, there are three of them in which not a drop of blood was poured out into the eye; one in which there was but an extremely small quantity; four in which it was more considerable, but without presenting any obstacle to the operation.

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* If the authors who have indicated as dangerous, the lesion of the iris, had taken the precaution of reckoning all the facts of this kind of which they have been witnesses, it must be thought that they would have arrived at different conclusions. Probably they have trusted to their memory, which has recalled to them only the cases of non-success. I know no source of error more fertile than that. The small number of those who have taken the trouble of collecting indistinctly, and without selection, many cases of the same disease, and who subsequently have scrupulously analysed the facts, in order to draw no deductions but such as have been contained in them, must have remarked, that upon a good number of points the results of their observations have been very different from the opinion they had formed from their reminiscences; and yet it must, indeed, be confessed, that too frequently it is that opinion alone that constitutes what is called practical experience.

As much must be said of the pain; it is sometimes very vivid at the moment at which the knife pierces the iris, at other times the patients do not appear to perceive it.

As to what refers to the definitive deformity of the pupil after the cure, it is true that it most frequently takes place, but without there following any remarkable disturbance in the faculty of sight, and without its being, moreover, a result of the inflammation, of which the effect would be to remedy it. However, although frequent, this slight deformity does not always persist; and the iris, when it has been divided, presents a tendency to reunion, which has appeared such to Sir William Adams, that in order to obtain the persistance of artificial pupil, when practised by incision of the iris, that oculist recommends to interpose a fragment of the crystalline between the lips of the wound, in order that they may not reunite. It must, however, be confessed that this tendency to reunion is not very great, at least during a certain time; for of thirteen cases in which the lesion of the iris had occurred, and in which I have marked exactly the state of the pupil at the exit of the patients, there have been found eleven in which this aperture had remained irregular; two only in which it had resumed its rounded form.

But if the lesion of the iris does not appear to have a more troublesome influence upon the definitive results than the simple puncture of the skin of the great angle of the eye, the same cannot be said of the issue of a part of the vitreous body; and, what is astonishing, the authors, at the same time that they mention this accident, seem by their expressions not to attach thereto a great importance, except when this humour has been evacuated in considerable quantity. According to Beer, when one-eighth or even a one-fourth of the vitreous humour has escaped, the sight is but little or not at all altered; if a third of this liquid has been lost, the sight can be but rather imperfect; and finally, when more than half has flowed out, the result is still less satisfactory. Professor Roux thinks, likewise, if I do not deceive myself, that the loss of a small quantity of the vitreous body, particularly if the eyes be large, is by no means a troublesome event. I think that, even in adopting this manner of regarding it, we should avoid with the greatest care, whatever may be able to determine the accident in question. Who can say, indeed, whether little or much of the vitreous body will flow out, once that its cells are broken?

However that may be, and on examining a certain number of cases, the conviction is arrived at that this accident is serious. I have observed it nineteen times; and of these nineteen operations, six only have been followed by success; whilst in retrenching them from the sum total, there remain sixteen operations, of which ninety-two have succeeded, which makes a little more than five cases of success for nine operations. The difference is, as is manifest, very remarkable; and let it not be thought that in all the cases of non-success, the one-half, the one-third, the one-fourth, even of the vitreous body has been evacuated. I do not believe that I have a single time seen a quantity considerable enough to be esteemed at a one-third, and it was generally much less.

I should still have had to speak of certain causes that seem to me calculated to exercise a troublesome influence upon the definitive results of the extraction of the cataract; I had to state by what means they may be avoided. It remained for me, finally, to examine the cases in which I have seen the depression practised; but all that would lead me very far beyond the ordinary limits of a thesis, and I have already exceeded them.

I recapitulate in a few words the principal results of this labour:—

Causes.—The sex has not appeared to exercise any influence upon the production of cataract in the patients submitted to my observation. Of 121 subjects, 61 belonged to the male, 60 to the female sex.

The influence of age is, on the contrary, incontestable; the fourth part nearly of the persons affected with cataract was between 50 and 60 years of age, the third nearly between 60 and 70; a little less than the fourth above 70.

Heredity must be considered as a real cause of cataract, since it has been proved in the fourth part at least of the patients questioned in this point of view.

As to the greater part of the other circumstances that have been studied—as the profession of the patients, their mode of life, their constitution, the influence of certain diseases, &c., I have explained the reasons which, according to me, are opposed to the actual appreciability of the value of these circumstances.

Commencement.—The cataract has commenced abruptly in ten cases; in a slow manner, on the contrary, in fifty-two.

It has attacked at first a single eye, 63 times in 72 (35 times the right, 28 times the left eye); in the last nine cases it has commenced at the same time on both sides.

In eight of these seventy-two patients, the formation of the first cataract has been altogether unperceived; accident alone has made them discover that they had lost the sight on one side.

Symptoms and Diagnosis.—The sensation of a uniform mist has been a constant symptom in all the individuals affected with cataract.

In three-fourths of the cases nearly (46 times in 59), there have been joined thereto other visual sensations, the most frequent

consisting in a black fly that the patients thought they perceived.

In forty-six subjects, fifteen saw better laterally than in front; eight saw no better in whatever position they placed the objects; twenty-three had remarked nothing peculiar on this subject.

In the great majority of cases, the patients saw better in an obscure than in a strongly lighted place; that is what has occurred forty-five times in fifty-five patients. The other ten had not observed the difference, or even said that they saw better in broad day-light; but in some of these last there is doubt regarding the simplicity of the cataract.

The pupil was moveable and regular, and the faculty of sight not entirely annihilated in almost all the persons affected with cataract; there have been, however, some exceptions in cases in which amaurosis could not be suspected.

The appearance of the cataract has been very varied; the following is, in the order of frequency, the principal hues observed in 117 persons affected with cataract:—grey, white, bluish, blackish brown. Besides the diversity of the colours, twenty-six patients in sixty-five had characters of a spotted or striated aspect.

The capsular cataracts are far from being frequent; there have been found but five of that kind in 179 which have been operated on by extraction.

The characters indicated by Beer and Travers for recognizing the capsular cataracts are illusory; these characters did not exist in the five cases indicated, and were met with in a great number of cases, in which the cataract was purely crystalline.

Duration.—The duration of the formation of the two cataracts has been as a mean in forty-seven subjects, and abstraction made of the sex, five years, one month, four days. For the men, it has been four years, two months, twenty-three days; for the women, four years, five months, twenty days. This mean duration has been, for the first eye affected, one year, seven months, eight days, for the men; two years, seven days, for the women; and for the second eye, one year, four months and a half, for the men; two years, fourteen days, for the women.

The men have more frequently, and for a longer time than the women, enjoyed the integrity of the functions of their second eye, after the first has been affected with cataract.

Results of the Operation.—The results of the operation of the cataract by extraction, have been more favourable to the individuals than to the eyes operated on. In 115 patients, seventy-three have recovered the sight, which makes a little more than five to eight. In 179 operations, ninety-seven only have succeeded, that is to say, a little less than five to nine.

In more than the third of the cases in which the operation has had no success (thirty cases), the loss of the sight has recognized for cause a secondary cataract, with or without partial opacity of the cornea, with or without deformity and displacement of the pupil. In fourteen cases the eye has been destroyed by suppuration; nineteen times there has been complete opacity of the cornea; once only occlusion of the pupil. In the last eighteen cases, the lesions were various.

Prognosis.—The age of the patients has not appeared to have any sensible influence upon the results of the operation, from 20 to 69 years; but above 70, the results have been a little less favourable.

The results have been a little less favourable in the women than in the men, whether the eyes operated on be considered isolately, or the individuals on whom the operation has been practised.

The results obtained in operating on a single eye have been less advantageous than those obtained by operating on the two eyes in the same day. That is what results from the comparison of forty-eight simple with sixty-four double operations.

The puncture of the internal angle of the eye, observed twenty-seven times, has not had any troublesome influence upon the result of the operation; of these twenty-seven cases, sixteen have been followed by success.

The lesion of the iris has not had more serious consequences, since of twenty-one operations in which this accident has occurred, eight times only the sight has not been re-established. In no case has there flowed out sufficient blood into the eye to hinder the termination of the operation; sometimes even there has not flowed out a single drop. The issue of a portion of the vitreous body constitutes, on the contrary, one of the most troublesome accidents, since of nineteen operations, in which it has been observed, six only have been followed by success.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(Illustrated with Numerous Plates).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET SOHO SQUARE, SESSION 1836.

By DR. RYAN.

LECTURE III.

History of Male Obstetricians.

ALTHOUGH the archives of antiquity have not recorded the names of any celebrated male obstetricians, there is abundant proof that the first professors of medicine and their successors, were acquainted with the phenomena and anomalies of parturition, and devised means for facilitating the birth of our species. It would be unreasonable to suppose, that the primitive fathers of medicine, who had so ardently endeavoured to elucidate the function of generation, should not have also studied the phenomena and anomalies of parturition. Their works afford ample proof of the affirmative.

In all countries where any degree of civilization prevails, the parturient process excites much attention, and is conducted with great care;—and even among the rudest tribes, there is more or less solicitude entertained for delivery. The love of offspring is a feeling common to mankind, and impels all to bestow attention and care on the helpless infant. Sacred and profane history authenticate this position. From the first foundation of medicine as a distinct profession—now a period of 2240 years—to the middle of the twelfth century, the diseases of women, and the difficulties of parturition, were described by all the ancient medical writers. Hippocrates and his eminent successors, to the dark ages or 14th century, both wrote on and occasionally practised obstetric medicine. We find it comprehended in the works of Hippocrates, Aristotle, Asclepiades, Celsus, Aretæus, Galen, Pliny, Rufus, Ephesius, Soranus, Ætius, Orabasius, Moschion, Rhazes, Avicenna, Avenzoar, Albucasis, Averrhoes, and a host of succeeding writers. It is perfectly evident that all had practised the obstetric art in difficult cases; but it was not until the commencement of the 17th century, that medical practitioners became generally employed as obstetricians. The first physician of eminence who engaged in the practice of midwifery, was the illustrious Harvey, who published his work De Partu in 1603. In this work he relates cases of every form of parturition, and of puerperal diseases which he had attended (pp. 360—368, 370, 376, and 379). Dr. Davis, of the the London University, and Dr. Ashwell, of Guy's Hospital, give the whole merit of the introduction of medical attendance during parturition, to M. Clement, who attended the mistress of Louis XI., in 1663, and both do not allude to the work of Harvey. It is certain, however, that the obstetric wards of the Hotel Dieu at Paris, were opened by Paré in 1575, about twenty-five years before Dr. Harvey's work was published.

But to return from this digression, I proceed with the history of male obstetricians. It appears that Hippocrates, the father and founder of medicine, was a theoretical and perhaps a practical obstetrician. He wrote four works on obstetrics—*De Morbis Mulierum, De Natura Pueri, De Exsectione Fœtus Mortui*, and *De Superfœtutione*. These works appeared nearly five centuries before the Christian era, and as they are the earliest known, their author is justly considered the father of obstetricy as well as of medicine. It does not appear, however, that he afforded aid during parturition; but it is evident, from his know-

ledge of the difficulties of the process, and the remedial means he advised, which included the whole of the instruments now in use, that he must have carefully studied, if not actually practised the obstetric art. His instruments were six in number, and were intended as tractors, incisors, and comminuters. He knew that the infant could only present by the head, pelvis, or trunk; that it could escape by one of the two extremities only; and that it ought to be returned, when it presented transversely. He considered that all presentations of the fœtus were anormal, except that of the crown of the head; and that all should be reduced to this, if possible. He held that presentations of the feet were dangerous, and generally fatal to both mother and infant, which is a great error. He aptly compared a transverse presentation of the body to an olive in the neck of a flask; he described arm presentations, the return and amputation of this extremity, embryotomy, and the mode of expediting the expulsion of the placenta, by means of an abdominal bandage, by the woman making forcing efforts with the breath retained, and by sternutatories or emmenagogues. Thus far his practice was good, and accords with the modern. He was in error, however, in advising the placenta to be removed immediately after the birth of the infant, in all cases, and to place the woman on a stool, and to attach a weight to the umbilical cord, or to shake the woman violently. He was most judicious in his remarks, that too early rupture of the membranes protracts the duration of labour; that venesection in full subjects excites it; that twisting of the navel cord round the neck, body, or limbs of the infant, stops the circulation and destroys life; and that uterine hemorrhage was often arrested by the application of cold water to the abdomen, or by cloths or sponges wetted with it; and that, in certain cases, plugging the vagina was an effectual means of checking it. In fine, his doctrines are much more accordant with the received opinions of the present period, than the superficially informed are disposed to admit. When we consider that he flourished A. C. 460, and was no anatomist or physiologist, we must naturally expect that many of his doctrines are erroneous.

We must, however, remember, that it was he who first separated medicine from the study of religion and philosophy, and reduced the chaos of his predecessors to a useful and liberal art—to a noble and dignified profession. He found it a skeleton, and clothed it with flesh, colour, and complexion; he embraced the cold statue, which by his touch became life, sense, and beauty, and his great works anticipate the vagaries of many modern authors.

Aristotle, who flourished A. C. 384, was deemed the successor of Hippocrates. He was physician to Amyntas II., grandfather to Alexander, and was tutor to the latter. He possessed more influence in medicine than all of his time, and many of his opinions were adopted to the middle of the sixteenth century. "He concurred with Plato," says the learned Lord Bolingbroke, in "various ways, to retard the improvement of medicine, not only during his life, but even to the present time." It was said he wrote a treatise on midwifery and diseases of women, but his contemporaries make no mention of it. In his *Historia Animalium*, he has treated largely on conception and generation. He extended the history of embryology, by observing hens' eggs during incubation. Many of his opinions are correct, but others are crude and superstitious. The popular obstetric work, styled his "Master-piece," in this country, was written by an empiric, named Salmon, in 1686, and is a most demoralizing production, now in general circulation, and which ought to be suppressed. It is a tissue of disgusting obscenity and absurdity, and the practical precepts invariably erroneous and dangerous*. He held that if the

* The French government ordered a popular treatise on midwifery to be prepared by the Faculty of Medicine, in 1777, for general circulation, with a view to diminish female and in-

womb was too contracted, the spasm should be abated before the introduction of the hand. He was of opinion that a living infant might be born by the feet. When it descended transversely, he advised the feet should be brought down, in such cases as they can be more readily seized than the head; but if neither kind of version can be accomplished, he advised decapitation, and extraction with the crotchet. When the infant was dead, it might be extracted by the head or the feet. In footling presentations, the navel cord ought to be so managed, that it could not be lacerated or compressed. When the head remained in the womb, it was to be compressed with one hand on the hypogastrium, and extracted with the other. Lastly, clots of blood ought to be removed from the cavity of the uterus after delivery.

Asclepiades, of Bithynia, who flourished ninety-six years before the Christian era, speaks of ulceration of the uterus, in his works.

In the year 80 of this era, Philumenos studied obstetricy, which was previously practised at Rome by midwives, who were designated *obstetrices, præsectrices umbilicorum, medicæ.* He recognised deformed and contracted pelvis as a common obstacle to delivery; and determined, very correctly, when the fœtus ought to be dismembered. Midwives were ordered, before his time, by the prætors, to examine pregnant women, when concerned in medico-legal inquiries. He also gives judicious directions for dilating the orifice of the womb when necessary; for extracting the placenta, and for performing embryotomoy. He mentions proper cautions with respect to the use of the hook and crotchet, and observes, that when either slips, convulsions may be induced by the laceration of the soft parts of the woman. He was less occupied in obstetric practice than Hippocrates or Celsus. He was the first who argued that the abdominal muscles concurred in the expulsion of the fœtus, which, according to him, did not descend or turn its head downwards, until the approach of parturition.

In the year 80, Celsus, who flourished at Rome about 480 years after Hippocrates, A. D. 37, in the first century, and whose graphic and elegant works are known to all well-informed medical men, left us directions for extracting the fœtus, in his seventh book; and also for reducing presentations of the superior extremities to footling cases—a recommendation soon afterwards condemned by Galen. Aretæus, of Cappadocia, flourished A. D. 132, and treats very fully of female diseases. Galen, who practised at the same period at Rome, alludes in many parts of his voluminous works to the management and treatment of female diseases. He condemned the operation of turning, proposed by Celsus—an operation now generally approved of; as also did Pliny, who, though not a physician, seems well acquainted with the opinions of that faculty, for he denominated such labours preternatural, and avers that infants born after such positions, were called agrippa, that is to say, born with much difficulty—an expression as correct as appropriate. Rufus and Ephesius are said by some writers to have flourished as contemporaries of Galen, in the reign of Adrian; by others at a much later period; both, however, attended to female complaints. Soranus studied obstetricy, and published four books on female diseases, A. D. 250; and Oribasius, of Pergamus, left many chapters on the same subject, A. D. 363. The next medical writer of consequence is Ætius, of Alexandria, who wrote and published many works, and the best one on female complaints that had appeared up to his time, A. D. 380. He was the first physician who compiled his work from the writings of all his predecessors. He devoted his 22nd, 23rd, and 24th chapters, to the diseases of women, and to labours; and in the first of these he published the opinions of Aspasia, and proved that obliquities of the uterus and malpositions of the head, were

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fantile mortality; but as there is no similar production in this country, the above is in great circulation.

not unknown to that midwife. In the last-mentioned chapter he introduced the opinion of Phelumenos, as to arrest of the shoulders after the birth of the head; and he advised the portions of adherent placenta, which could not be extracted with the hand, to be left in the womb. Lastly, he recommended styptic injections, astringent pessaries, and ligatures round the limbs, in cases of uterine hemorrhage, and he inserted a long list of substances used by Aspasia, for causing sterility and abortion. Paulus, of Eginetus, flourished in the year 420, and left seventeen chapters on the diseases incident to women, including a very good account of difficult deliveries. He was surnamed *Al Kababel*, or the physician of women; *viz. obstetrix, obstetricus*. He delivered public lectures on obstetrics, which attracted midwives from all nations. He divided labours into natural and labourious. He maintained that the premature escape of the waters was a frequent cause of the last. He described the obstetric arm-chair of the ancients, and was favourable to the succussions advised by Hippocrates. If the hand presented, he returned the shoulder by placing his fingers under the arm. When both feet descended, he terminated the labour by making oblique or circular tractions. He maintained that the crotchet ought to be placed on the occiput, in preference to any other part, and that perforation of the head was sometimes necessary to permit the use of the forceps. As to the removal of the placenta, he preferred to wait for uterine action, rather than excite it by force, and especially when the womb was irritated. He was said to be a better surgeon than Celsus. Moschion published his work *De Morbis Muliebrius* in imitation of Hippocrates, A.D. 500: others say, in the reign of Nero. This was the first treatise on midwifery, and gave the most accurate description of gynæcotomy, probably from actual dissection. He advised the position of the woman to be changed, so as to vary that of the fœtus; he held that pedal presentations were nearly as easy as those of the head; that when the arm presented, the feet ought to be brought down, but he preferred bringing down the head, especially in transverse positions; and that the occiput ought to be brought in front; that the womb is liable to many sorts of inclinations or obliquities, and that the navel cord ought to be tied with two ligatures, before it is incised between them. He attempted to reduce all preternatural presentations of the infant to those of the head, and if he failed, to those of the feet. This practice has still its advocates in Germany; among whom are Flament, Osiander, Siebold, and others. He described the obstetric chair of his time, which was like a barber's stool, with a lunar aperture for the infant to pass through on coming into the world.

Rhazes, of Arabia, published the immense number of two hundred and twenty-six books on medicine, and some of them, on female diseases: he lived about the year 825. He advised the membranes to be ruptured with the nail, a small knife, or other sharp instrument, when they happened to be so strong as to impede delivery. Avicenna, another most distinguished Arabian physician, who resided at Ispahan, published a work on conception, pregnancy, and delivery, on the use of the forceps—an invention for the double purpose of saving the life of the mother and child, also described by Hippocrates, as all other instruments; he left directions for the application of fillets in extracting the fœtus, and recommended all preternatural cases to be reduced to natural, if practicable; if not, to reduce them to footling presentations—a practice very generally adopted by the best obstetricians of latter times. He also left a book on diseases of infants, A. D. 980. He proposed a craniotomy forceps for breaking down the cranium, when the pelvis was greatly deformed; and this has been lately improved by the inventions of Dr. Davis, Dr. Conquest, and Mr. Holmes, in this country, and by MM. Baudelocque and Duges, in France. Avicenna devoted eighteen chapters to pregnancy and generation, and twenty-nine to the different kinds of parturitions. Avenzoar wrote on female diseases

at this period. Constantine, of Carthage, published his work on female maladies, in the year 1085; and Albucacis, of Cynapolis, on the Caspian Sea, left various directions for the extraction of the fœtus and the placenta, about the same time. He relates the case of a fœtus that was expelled in pieces through the parietes of the abdomen. He gave plates of numerous obstetric figures. He invented two kinds of forceps, one without teeth, and the other with them. These he named *misdach* and *almisdach*. Averhoes, of Spain, published a short account of female diseases, about the year 1150; and at this period, an Arabian writer, named Abi Osbia, gives an historical account of three hundred writers on female complaints, many of whom were but very little known.

The art of obstetrics was vague and badly established up to this time. It was not reduced into a code of doctrine. Paul, of Ægina, and Moschion, seem to have been the chief obstetricians; all the rest included obstetricy in their works, but not as a distinct section of surgery; and the whole practised medicine in all its branches.

Literature, science, and the arts, were greatly neglected from this period to the revival of learning, in the middle of the fifteenth century; but, nevertheless, there were some writers on midwifery and diseases of women, who are entitled to notice, in the history of the obstetric art: among these are, an Italian, named Bestrutius, who wrote on diseases of women, in the year 1250; Henry, of Saxony, who published two works on the same subject, in 1290; Gilbertus Anglicus, who wrote on baths, and also left a short work on diseases of women, in 1300; Gordon of Montpellier, an author on the latter subject, in 1305; John Platerus, an Italian, 1350; and Valescus de Taranta, a Portuguese, in 1418. The art of printing, one of the greatest human discoveries, was made in 1440; soon after which, literature and all the sciences advanced with unprecedented rapidity, and works on all subjects escaped from that prolific parent, the press, in very rapid succession; the accumulated stores of the ancients were now exposed to general observation and inquiry throughout Europe, and this brilliant and splendid era was universally and most properly denominated "the revival of letters." Gynæcologists and obstetricographers now increased, amidst the universal multiplication of authors.

In the year 1440, Guianer, of Pavia; in 1456, Sermoronus of Padua; in 1486, Savonarole, of the same city, in 1490, Galeas de Santa Sophia; and in 1500, Alexander Benoit, of Verona, published their works on female diseases. All succeeding ages have contributed so many obstetric authors, that I shall allude to them distinctly.

Sixteenth Century.—During this age, obstetric writers became remarkably numerous; the most distinguished of these was Eucharius Rhodion, or Ræslin, whose work was published in 1502, according to Busch *, and in 1519, according to Osiander. The Latin edition of it appeared in 1532 †, was translated into French by Bienassis, in 1536 ‡, and by Raynolde, into English, in 1540. This little work was called the "Woman's Book," and obtained the greatest success. It appeared in all the European languages. It did not, however contain but very little that had not been described by Hippocrates, Ætius, Paulus Æginetus, Moschion, and Avicenna, whom the author occasionally quoted; but obstetric precepts were never collected in so small a volume, nor presented in so luminous a manner, or rendered so easy of reference, or in a distinct work. The author gave a figure of the obstetric chair in use in his time, some representations of certain positions of the fœtus, and one of a bicephalous monster similar to Ritta Christina. It is manifest from his plates

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* Lehrbuch, &c. † De Partu Hominis, 18mo. ‡ Des divers travaux et enfantement.

and text, that this writer had very little practical experience as an obstetrician. He maintained, among many other errors, that the occipito-sacral position of the fœtal head was that of the natural parturition by the vertex. He also affirmed that the natural position of the infant was with its face towards the maternal pubis and abdomen; whereas, the correct opinion is, that the face is to the sacrum or back of the mother. He also advised, when the infant advanced into the world by the feet, that attempts should always be made to bring down the head, in what he erroneously termed the natural position; which was bad and dangerous practice.

The next works on diseases of women were by Faventinus de Victoriis, of Faventa, in 1525; that of Pratensis, of Zuider Zee, in 1530; and that of Bonaciolus, of Florence, in 1536.

In 1540, Dr. Raynolde published the first British treatise on obstetrics, entitled "*The Byrthe of Mankynde; or, the Woman's Booke.*" This was a translation from the Latin edition of Rhodion's work, which had also been converted from the German into Dutch, French, and Spanish, and was popular over Europe at the time. It was the first medical work in this country, that had prints reasonably executed from drawings*. There were other writers of this period who deserve to be mentioned:—Fontanon, of Montpellier, in 1540; Furchs, of Bavaria, in 1548; Sylvius, or Du Bois, and Fernel, of Amiens.

In 1554, Rueff, of Zurich, published his treatise, which was a literal copy of Rhodion's. The plates were exactly similar. He re-introduced the forceps of Avicenna and Albucasis, and designated the instrument *forceps longa et tersa*, and of *Rostrum Anatis;* and he was, perhaps, the first who described thrombus of the vulva. The appearance of these two works, with Raynolde's, established a revolution in obstetrics, and surgeons no longer hesitated to assist women during natural as well as preternatural parturition†. But it is proper to state that other writers refer the employment of male obstetricians to Paré, in 1573; to Harvey, in 1603; and to Clement, in 1666; for reasons which will be stated hereafter.

The next writers on diseases of women were Roussens, of Goude, and Montanus, of Verona, in 1555; Tincavel, of Venice, and Rondelet, of Montpellier, in 1560; Forestus, of Leyden, in 1561; Wier, of Cleves, Dunus, of Locarno, and Gunthier, of Andernach, 1565.

In 1573, Ambrose Paré published a very small work to prove that delivery by the feet was not dangerous, and that in preternatural presentations, it was safer to extract the infant in this manner than by the head‡. The effect of this little production was to destroy the fame of Rhodion's work in all parts of Europe, and to open the obstetric wards of the Hotel Dieu, at Paris. The practice of version, which Paré recommended, soon became generally adopted, and is now practised by all scientific obstetricians. Much discussion was excited in France about this period, by the publication of the work of Rousset, which advocated gastro-hysterotomy, or the Cæsarian operation; but the weight of authority was against it.

Toward the close of this century, a few other writers on obstetrics deserve notice. In 1577, Le Bon, of Autreville; in 1582, Liebant, of Dijon, and Mercurial, of Forli, published the best treatise de morbis muliebribus, that

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* The late Dr. Combe had in his possession the identical manuscript copy of this work, which was presented to Catherine, queen of Henry VIII. It was signed — Jonas, as the author; but it does not appear why it was afterwards published under the name of Raynolde.—(Denman's Introduction to the Practice of Midwifery. Seventh Edition. 1833).

† Velpeau, Traitè de l'Art des Accouchm. 1835, p. 17.

‡ Maniere d'extraire les enfans du ventre de leur Mere, 1573.

had appeared: and Akakia in the same year; in 1583, Platerus, of Basil; in 1584, De la Corde, of Rheim, who was the first writer on hydatic dropsy; in 1585, Bottonus, of Padua; in 1586, Wolphius, of Zurich, published a compilation of nearly all the preceding writers on female diseases and obstetricy, which included about twenty in number; in the same year, Capivaccius, of Padua; in 1590, Forestus, of Almaer, and Schenckius, of Graffenberg; in 1595, Masserias, of Padua, and Mercado, of Valladolid; in 1597, Spacchius, of Strasburg, republished the compilation of Wolphius, already described; and in this country, Rousset, Guilleman, and others, may be included.

CLINICAL LECTURE, ON HYPERTROPHY AND LEPRA,

By Dr. A. T. THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Post Mortem Appearances and Dilatation of the Left Ventricle — Case of Lepra Alphoides — Effect of Biniodide of Mercury and Iodide of Arsenic—Mode in which they act—Distinctive Characters of Lepra.

Gentlemen—We have had an interesting post mortem examination of the body of a Polish refugee. It is to be regretted that we had not obtained the previous history of the case: he survived only a short time after his admission into the hospital. I have preserved the heart for your examination: the left ventricle is very large; the parietes thickened; the carneæ calumnæ are very much flattened; the aortic valves are covered with delicate little vegetations, which extend even to the ligaments of the carneæ calumnæ. This man came in with a pallid complexion—the impulse of the heart was very strong—and Mr. Taylor informs me that he detected a bellows sound along the whole of the sternum. The pulse was very feeble at the wrist. Now, thickening of the parietes of the heart is a diseased state of the organ, independent of dilatation—thinness of the parietes generally occurs with dilatation of the right cavity of the heart, and thickness or hypertrophy with dilatation of the left cavity; and the carneæ calumnæ become flattened, as in the present case. In great dilatation and hypertrophy of the left cavity, thickening is almost a constant characteristic. In all cases of hypertrophy there is increased action of the heart. In hypertrophy with dilatation, the palpitation comes on without any evident cause—frequently even whilst the patient is lying quietly in the bed—and the impulse is so very strong, in many instances, that the bed-clothes are shaken by every pulsation, and the medical attendant may count the number of pulsations by looking at them. In such cases livid complexion occurs, and great dyspnœa supervenes when effusion takes place; but cough is not always present. On examining the chest, in cases of this sort, we find that when the dilatation is considerable the impulse is much lower than natural, and of several beats—one is heard to be more vigorous than the others, and to impart a sensation which is characteristic; the carotids act powerfully, and the pulse does not correspond to the impulse of the heart: it is not considerable in these cases, and not very irregular. We often find that in dilatation the sound is augmented; the second sound is generally louder than the natural, and is heard over the whole of the surface of the chest. When the valves are diseased, there is generally what is called the *bruit de soufflet*, or bellows sound, very conspicuous, as in this case. If the previous history of this case, and the exact condition of this patient at his admission, had been taken down, we might have been able to explain some of the physical signs, and the case would have been much more interesting: as it is, I have thought proper to shew you the condition of the heart, and offer you these few observations on dilatation and hypertrophy.

Lepra Alphoides.

The next case which I have to bring before your notice, is one of lepra—that species of the genus lepra which is called *alphoides*, but which is, in fact, a mere modification of the *vulgaris*. The following is the case:—

Harriet Balls, admitted January 11th, 1836, milliner, &c., aged 18, of the sanguine temperament. About ten years ago she had an eruption, which appeared at first on the elbows and knees, and extended successively over the arms, legs, trunk, face, and head: it has always appeared at first in small smooth, and slightly red circular spots, which have increased in size until several contiguous spots have ran into each other, forming patches of various sizes; these smooth red spots have become covered with thin white scales, which have continually fallen off. When she was young, it was accompanied with a tingling and itching sen-

sation, but for the last two years she has felt no uneasiness whatever from it; she has had but little medical attendance; some time ago she had some mercurial ointment rubbed into the parts covered by the eruption, which produced ptyalism; and she went to Brighton for six months, about five years ago, but with no relief.

At the present time, the eruption is present in every region of the body; the distinct spots everywhere of the circular form, and the patches everywhere retaining the circular character; the largest patches exist at the elbows and knees—the margins of the patches of eruption are composed of various sized portions of circles; the largest of the distinct circles are not so large as a sixpence; the eruption is of a pale red colour; the central area of some of the circles has recovered the healthy appearance of the skin, leaving a ringed form of margin consisting of thin white scales: it is more numerous over the lower extremities; she complains of heaviness at the top of the head, and of frequent giddiness, and latterly she has been much depressed in mind, from an idea that recovery was impossible: in other respects her general health is pretty good. The pulse is 70, and rather sharp; the respiration is natural; the skin is cool and dry; she does not perspire; the tongue is slightly furred towards its base; her appetite is slightly impaired; she has slight thirst; the bowels are always constipated; the urine is natural; menstruation is natural. She has pains in the joints and limbs at night, which she attributes to the mercury which has been used.

Jan. 11th. V. S. ad ℥ viij.

℞. Hydr. submuriatis, gr. v, micæ panis, q. s. ft. pil. hora somni sumenda.

Sumat haust. sennæ comp. cras mane.

℞. Potassæ hydriodatis, gr. iij;
Decocti dulcamaræ, ℥ iss; ter quotidie sumend.

℞. Unguenti picis, ℥ ss;
Adipis, ℥ ss.

M. Ft. ung. partibus affectis applicand. omni nocte. D. M.

12th. The blood is much cupped and buffed—the buffed surface has a mottled brown appearance; the disease is somewhat paler; she is somewhat relieved of the weighty sensation at the top of the head and giddiness; the bowels have been operated upon but once by the pill and draught; the pulse is natural.

13th. ℞. Hydrarg. biniod. gr. 1-6th;
Extr. conii, gr. iij.

M. Ft. pil. hora somni sumend quotidie.

℞. Arsenici iodidi, gr. i;
Extr. conii, gr. xij;

Ft. mass. in pil. xij, dividenda sumat i bis quotidie c.

Decocti dulcamaræ, ℥ iss.

Omittatur potassæ hydriodas.

15th. The eruption is still paler; she does not complain of pain in the head, or giddiness; the bowels are open.

Continuentur pilulæ—Decoct. dulcam. et ung. V. S. ad ℥ vj.

16th. The blood was slightly buffed and cupped; there is no essential difference since the last report.

18th. The appearance of the disease is improving.

Augeatur arsenici iodidum ad griss et Extr. conii ad gr. xvj.

V. S. ad ℥ vj cras mane.

19th. The catamenia appeared this morning, consequently she was not bled; and she was ordered not to take any medicine until their cessation.

22nd. The catamenia are still present; she is not taking any medicine.

25th. She was able to resume the medicine yesterday; she has a return of the weighty sensation at the top of the head; the pulse is 78, and slightly sharp; the tongue is clean; the appetite is pretty good; she has no thirst; the bowels are open.

V. S. ad ℥ viij.

Augeatur hydr. biniod. ad gr. 1-5th;

Aug. arsenici iod. ad gr. 1-10th, ter quotidie.

(Arsenici iod., gr. i; Extr. conii, ℈j, in pil. x, divid.) cum decocto dulcamaræ.

26th. The blood was not cupped and buffed.

29th. She has no pain in the head now; the disease is paler.

Continuentur pilulæ—decoct. et ung.

The vertigo which is stated to occur in this case, is by no means a common symptom in lepra; but the sensation of weight at the top of the head I have known to occur in a great number of cases. There can be no doubt that lepra is an inflammatory affection; and it has been only since we were convinced of this that it has been treated successfully, and cured in a short time. It had always been considered an inveterate disease of the skin, and one most difficult to cure; now it is one of the most easily and rapidly managed. The blood-letting, in these cases, is not intended to subdue general excitement, for it often happens that the excitement is not very considerable. In old persons I should not carry blood-letting to any extent; but in such a case as this, where there is evidently febrile action, I have no hesitation in taking away blood. This treatment is by no means inconsistent with the tonic plan of treatment. The other part of the treatment in this case is alterative and tonic; the object is to set up a new action in the habit; at least in the cutaneous capillaries. But if the excitement were remedied by the ordinary means; if we were to employ purgatives, except in young children, and where there is plethora, we should not succeed—the disease would be much aggravated by this

treatment. In this case I have prescribed the biniodide of mercury—I have found, in the course of my experience, both public and private, that mercury is carried into the system much more rapidly in combination with iodine than alone: we know that the chief action of iodine, when taken into the habit, is upon the capillaries, consequently the combination of mercury with iodine is much more effectual than the bichloride of mercury, or any simple preparation of the metal.

I have seen lepra cured at least a hundred times by the bichloride; but I have always succeeded in curing it much more rapidly with the biniodide of mercury. In this case I have also ordered the combination of iodine and arsenic. Arsenic alone, or the arsenical solution, is a very common remedy in lepra, but it is slow in producing its effects; I have frequently given it to a great extent; namely, to fifty or sixty drops of the arsenical solution, three times a-day. I am anxious in this case to ascertain whether the combination of iodine and arsenic produce any unpleasant symptoms, because if any uneasiness about the chest occur it must be discontinued. We must attend also to the state of the eye; if there is any puffiness or sensation of stiffness in the under eyelid we must desist. The patient is already evidently improving; and I have no doubt that we shall be able to carry the iodide of arsenic to its full dose. I have never seen any of those symptoms which are denominated the irritative fever of iodine occur when it is administered with arsenic; and this appears to me to depend upon the influence of arsenic upon the skin: its operation is diaphoretic, and it seems in this case to prevent the iodine accumulating in the habit, and procures its being thrown off speedily by the surface. This is an advantage. The warm bath is very serviceable in this disease; this woman has not yet employed it, but I intend to order it soon. I have ordered the diluted unguentum picis, but when there is much tingling or uneasiness it ought not to be used: it will only aggravate the symptoms. The unguentum picis should be diluted with about an equal quantity of common lard.

On the whole this is an interesting case: the woman has been in the hospital but a short time, and omitted all medicine for five or six days, in consequence of the appearance of the catamenia; but there is already a very evident improvement in the disease.

Professor Thomson had the female brought before the students, and demonstrated the characters of the disease—the circular spots—the largest of the distinct circles not larger than a sixpence—the patches consisting of the aggregation of several circular spots, and the circular character of the eruption, capable of being traced in the patches, and their edges consisting of portions of various sized circles—the smaller smooth and pale red spots shewing the commencement of the disease—the thin white scales in others shewing a farther progress in some of the spots—the scaly border in some, in which the central area had recovered its healthy texture—the irregular diffused patches about the elbows, contrasted with the appearance of the disease where more of the soft parts are covered by the skin, &c.

The Professor then compared this case of lepra with a cutaneous disease of a somewhat tubercular character, in a man who was brought into the theatre to be seen by the students. Dr. Thomson said that it has been and is frequently confounded with lepra: he strongly suspected this tubercular disease to be of syphilitic origin, and is treating it as such. In this case the margins of the eruption are the first parts which recover their texture, leaving a prominent central mass of cuticle; whereas in lepra, the centres of the circles first recover their natural texture, the cuticle appearing healthy, and surrounded by a broken ring of a scaly texture. The diagnosis is important, as the treatment requires to be very different from that of lepra. The patient states that he has had no venereal affection, but appearances are against him.

AMERICAN CLINICAL REPORTS.

Tuberculous Meningitis—Effusion of Concrete Yellow Substance at the Base of the Brain—Softening around the Tuberculous Matter—Little Serosity in Ventricles—Numerous Gray Granulations in the Lungs—Ulcerations of the Glands of Peyer.

Asa ——, æt. 24, cabinet-maker, born at Philadelphia, entered September 6th, 1834. Was always of feeble constitution; when two years old, had caries of the bones of the face, with discharge of matter from the abscess for some months. For the last two years is more dull than formerly; is subject to headach, at times severe, but has rarely quitted work. He has coughed a little at times, though scarcely so much as to attract the notice of his friends. The dullness and cephalalgia increased within the last six weeks; and three weeks ago, while at work he suddenly lost the use of his speech and of the right arm; he walked home, took some purgative medicine, and the partial paralysis ceased in a day or two afterwards. The cephalalgia continued with constipation, but no vomiting; intelligence still dull; he applied for medical aid at the dispensary, where the only symptom noticed was constipation. Two days before his admission his speech was again impeded, and there

was a sudden partial loss of motion in the right arm and leg, with retraction of the mouth towards that side; delirium; he was still able to walk. It was not known whether any rigidity or alteration of the sensibility had existed. He was bled twice, and purged before his admission.

Present state—September 6th.—Hair black; eyes dark; skin brownish. Emaciation advanced. Height, five feet ten inches. Decubitus indifferent; intelligence very obtuse; answers scarcely intelligible, incoherent; complexion dull; expression stupid; nostrils compressed; right corner of the mouth drawn backwards, especially while speaking; tongue a little turned to the right, very red and dry, with elevated papillæ. Right arm in motion, catching at the bedclothes and in the air; it is evidently rigid at the elbow and wrist. Right leg a little flexed, and slightly rigid; no rigidity in left arm or leg; sensibility in all the limbs seems natural; motion slow and difficult, both in the right arm and leg; speech nearly inarticulate, deglutition easy; subsultus tendinum of both wrists; anorexia; no vomiting; thirst; constipation; abdomen distended moderately; skin very hot and dry; no cough; percussion sonorous in both sides of the chest; respiration 20 in the minute, pure and expansive; pulse regular, soft, 80. Cups to back of neck; (to take ℥ x, of blood). Mustard pediluvia.

7th. Delirium all night; same expression of countenance; same rigidity of the right side; right pupil rather contracted; speech more distinct; hearing and sight good; no vomiting nor dejections; pulse 80 to 84 during the whole day, full, and rather resisting. Neutral mixture. Saline cathartic.

8th. Restless at night, but made no effort to rise; no answers when questions are addressed to him; mouth now drawn to the left side; pupils dilated, left larger than right, neither contractile; rigidity not evident in the right side, which is now completely paralyzed; floccitation confined to the left hand; doubtful rigidity of the left elbow; sensibility very obtuse on the right side, nearly natural; on the left. Swallows every thing offered, but shows no desire either for food or drink; speech inarticulate; pulse 120, much weaker; respiration 20, high. Blister over the whole scalp. Profuse sweats during the night; pulse weaker and more frequent; convulsions, followed by death in the morning of the 9th.

Autopsy on the 9th—Exterior.—No rigidity; body still warm; little emaciation; no œdema.

Head.—Dura mater adhering strongly to the cranium. Longitudinal and lateral sinus full of liquid blood. On the superior part of the cerebrum the arachnoid is rough and gritty to the touch, and adheres strongly to the convolutions, which are not flattened; beneath the arachnoid on both sides, but especially the left, are scattered yellowish patches adhering closely to this membrane, and detached with it from between the convolutions. Vessels of the pia mater not injected. Base of the brain covered and nearly concealed by a layer of concrete yellow substance, in which are a multitude of round, gray, semi-transparent granulations, very hard, and not larger than a millet-seed, but in general much less. This layer covers the commissure of the optic nerves, the annular protuberance, and the medulla oblongata; it is seen on the whole posterior surface of the brain, and upon the cerebellum, being less in the form of a distinct layer as it approaches the sides of the brain, and is replaced by the irregular patches described, on the convex surface. The same straw-coloured substance is prolonged on either side into the fissures of Sylvius, and extends throughout their whole length; it is most abundant on the left side, where it is six or eight lines in breadth, and from two to four in thickness; it is but little less on the right. The substance surrounds and conceals the vessels of the fissure, is of a cartilaginous hardness, but does not present as distinct granulations as the layer at the base of the brain. Plexus choroides rough to the touch, and containing some very minute transparent granulations. Cerebral substance of the summit of the brain is firm, very moderately injected, the gray a little rose-coloured, the white but little dotted with blood. Corpus callosum and fornix pale and firm; consistence of the whole right hemisphere, except along the fissure of Sylvius, perfect; injection very moderate. The inferior two-thirds of the corpus striatum of the left side was pulpy, of a yellowish colour; below the corpus striatum the brain was softened to the following extent; superiorly the softening was bounded by the corpus striatum; inferiorly by the fissure of Sylvius, and around the fissure by a portion of sound cerebral substance at the base, from one to three-fourths of an inch thick; its antero-posterior diameter was from two and a half to three inches, beginning less than an inch from the anterior extremity of the brain. The softened part was pulpy, but not diffluent, although in strong contrast to the firmness of the surrounding parts, of a pale orange-yellow colour, dotted with a few red points, which became more numerous near the fissure of Sylvius. The sound cerebral substance was rather abruptly continued into the diseased parts, but there was no increase of vascularity, or traces of a cyst. Each lateral ventricle contained about two drachms of limpid serosity. Spinal marrow could not be examined.

Thorax.—Lungs not adherent; no granulations or tubercles in the pleuræ. Right lung contains in all its lobes, especially in the upper, a multitude of gray, semi-transparent granulations, which are most nume-

rous beneath the pleuræ; these granulations are thickly disseminated throughout the whole pulmonary parenchyma. Two or three yellow, hard tubercles, not larger than peas, are found in the upper lobe. Left lung wrinkled near the summit, above a mass of gray granulations, the size of a hazel-nut, deposited in hardened pulmonary tissue, apparently owing to an infiltration of the same gray matter; gray granulations similar to those in the right lung, but less numerous, are found beneath the pleura, and throughout the tissue of the lobe. The lower is, like the rest of both lungs, dark-coloured and permeable, but contains no tubercles or granulations. Bronchi in both lungs rosy, containing a little mucus. Bronchial glands small, containing but a single point of yellow tuberculous matter. Heart firm, red, containing liquid blood. Pericardium not adherent.

Abdomen. — Stomach contains a thin greenish liquid. Mucous membrane palè throughout, rugous and mammillated; thickness a little increased, especially along the large curvature; consistence perfect.

Small intestine, (examined only in the six feet nearest the valve.) Glands of Peyer ulcerated, of reddish-brown colour, and studded with tuberculous points. Mesenteric glands small, pale, not tuberculous.

Large intestine not examined.

Liver brown, a little engorged with blood, not fatty, without tubercles or granulations. *Spleen*, numerous gray granulations in its membrane, and a few in its tissue, which is firm; length three inches and a half, breadth an inch less.—*The American Journal of the Medical Sciences, Nov.* 1835.

Case of fatal Epilepsy, from Suppuration between the Dura Mater and Arachnoid, in consequence of blood having been effused in that situation. By Dr. Bright.

Philip Dennis, aged 37, was admitted, under my care, July 1, 1835. He was a spare thin man, who had been subject to an affection of the larynx; and was in St. Thomas's Hospital some time before, with a sore over the right eye; which, from the appearance of the scar, now perfectly healed, was probably of a syphilitic character. He was, however, in a fair state of health so as to gain his livelihood by labour, and was occupied in turning a wheel with much force, exactly one week before the time of his admission into the hospital, when, suddenly, his right arm was affected with a kind of cramp; and this feeling seemed to rise towards his face: he then fell insensible, and came to himself in about three-quarters of an hour. On recovering from the fit, he was able to raise his right hand almost as well as ever, and continued to work the whole of that day and the next; but on the following day, whilst sitting at work, he again fell in a fit; and, after being in a deep sleep for some hours, awoke very weak, but still retained the use of his arm. He remained free from any other attack for three days; but on the fourth, which was the day before his admission, about four o'clock in the afternoon he was again attacked, and had seven fits before ten o'clock at night. Since that time the right arm had been weak, and affected with a tingling sensation, but not paralyzed. The leg of that side was free. The right cheek felt numb; and the tongue, when protruded, inclined a little to the right side. He had very severe headach. Pulse, 120. Pupils natural, both in size and action.

Radatur caput, et applicetur Embrocatio communis.—Applicentur Cucurbit, Cruentæ nuchæ; et detrahatur sanguis ad uncias x, vel. xij.—Habeat. Hydrarg. c. Cretâ, gr. v. ter quotidie.

July 2. Shortly after being cupped, a fit came on, which lasted for an hour and a half. It was attended by frothing at the mouth, and the whole right side was greatly convulsed. He appeared to be sensible during the whole of the paroxysm. His power of articulation was destroyed for several hours after the fit, but it returned: when it left him, he appeared feverish and irritable.

Applicetur Emplast. Cantharidis nuchæ. Habeat Mist. Camphor. c. Liquore Ammon. Acet. et Vin. Antimon. sextâ quâque horâ. Rep. Hydrarg. c. Cretâ, ut antea.

I now gave it as my opinion, that these fits were owing to some local disorganization affecting the membranes and cineritious portion of the brain on the left side, and probably influencing the deep-seated parts about the posterior portion of the corpus striatum.

July 3. He complains much of pain across the forehead, but particularly on the left side.

Applicetur Emplast. Cantharidis lateri capitis sinistro.—Rep. Medicamenta.

During the two succeeding days, there was no decided return of the fits.

6. Without any return of the fits, the paralysis of the right hand has become almost complete; the power of deglutition, as likewise that of articulation, very imperfect; the mouth much drawn to the left side. He seems to comprehend every thing that is said; but is unable to speak, and his eyes are vacant. Bowels relaxed.

Habeat Misturam Cretæ Aromaticam, quartâ quâque horâ.

7. Deglutition still more difficult.

8. The fits have followed each other in rapid succession, half an hour seldom intervening between them: he still appears conscious, even during the attacks.

9. The fits are constant. Both the right arm and leg appear paralyzed.

10. He died in the night.

Sectio Cadaveris.—The calvaria sound. The moment an incision was made through the dura mater, on the left side, some thick green pus escaped. Carrying on the division of the dura mater in the circular direction of the cut made by the saw, and attempting to turn it back towards the middle line, it was found to be thickened, and attached irregularly to the surface of the arachnoid, covering the brain; and when completely turned back, several deposits of pus were disclosed, confined by false membrane, making pressure on and amongst the convolutions, and looking like a map in which the islands and continents were represented by deposits of pus. In a few places, the convolutions were rather vascular, but covered with their natural polished arachnoid. The largest deposit, and that which had made the deepest pressure, was in the posterior part of the fossa made by the temporal bone. The substance of the brain was healthy, except that it was compressed. The right hemisphere was in all respects healthy.

On carefully examining the dura mater on that part where the deposit of pus was greatest, it was easy to perceive a thin layer of blood between the adherent pus and lymph, and the internal surface of the membrane; and I have no doubt that this was the immediate cause of the whole mischief. During a violent exertion, a vessel in the dura mater had been ruptured, giving rise to the first fit, which bore much of the apoplectic character. This was followed by suppurative inflammation, and the local irritation which produced the epileptic symptoms.

The whole history and progress of this disease is full of interest; and I wish to say a few words upon the reasons which induced me (on the day after the patient's admission) to give my opinion as to the seat of the disease. I am always inclined to believe, that in disease, as in other things, cause and effect will be found to follow each other in pretty regular succession; and that the chief obstacle which we have to encounter, in forming more accurate diagnosis, is the difficulty of ascertaining the whole of the facts, which necessarily undergo an almost endless multiplicity of complications; and, if we wish to improve our knowledge, we are sometimes obliged to make what may be called a conjectural diagnosis, founded on such prominent and peculiar symptoms as connect the case under consideration with some other which has previously come within the scope of our observation. My reason, then, for supposing that the epileptic attacks, in this case, depended rather on a local affection than on a more general state of cerebral circulation or excitement, was, the degree of consciousness which was observed to be retained during the fits: for although we meet with great variety in this respect, yet, in two cases which have occurred to me, the fact of the patient generally remaining conscious has been a remarkable feature; while, in each, the injury on which the fits depended was of a local, rather than a constitutional or a general character. One of these was a nurse in Guy's Hospital; and the cause of epilepsy was a fungoid growth from the dura mater. The other was a gentleman whom I saw in private, and in whom—from the similarity of the symptoms to those of the nurse, though the attacks were much more severe—I was induced to predict a similar local cause: and such was, after death, found to be the fact.

The present forms a third instance, in which I have observed this peculiarity in the state of the mind during the paroxysm: indeed, the symptoms, taken as a whole, in this case, most strongly resemble those of the second I have just mentioned. We cannot, from these few cases, infer a constant connection between the circumstances to which allusion has been made; but, at all events, it does not seem improbable, that the local and general cause should be attended by different mental indications: and I would here observe, that cases in which epilepsy follows accidents, and in which the fits are often attended by a destruction of consciousness, do not necessarily form an argument against the establishment of such a law; because, in these cases, the mischief, though produced by mechanical and casual causes, is often very generally impressed upon the brain, on its very first infliction. With regard to the other parts of the diagnosis—the temporary paralysis of one side, and the permanent weakness, favoured the view of decided organic lesion. The epileptic character seemed to point to the membranes and surface of the brain, as the parts most affected; for of this connection I have pretty well satisfied myself, by an extensive induction of facts: and the circumstance of the right hand having suffered more than the leg, and the speech having been affected, directed my views to the posterior, rather than the anterior portion of the left hemisphere.

The nature of the local injury might certainly, from the history of the attack, have been conjectured; and the rupture of a vessel was one amongst the possible causes of which I spoke; but there seemed to be objections to this solution; and the suddenness with which softening or other slow change in the brain will occasionally declare itself, by no means precluded such lesions from a place in our anticipations.—*Guy's Hospital Reports, Jan.* 1836.

ON THE PUTREFACTION OF ANIMAL MATTERS.

(*Continued from Page* 24.)

THE catacombs at Kioi, or Kiow, in Polish Ukraine, and those near Palermo, are said

to contain several bodies in a state of preservation. Many other examples are recorded towards the end of Dr. Fletcher's Physiology.

Sir E. Home states that the bodies in Shoreditch church, London, are converted into adipocire. (Phil. Trans. 1813). The fact has been observed in the church-yard of St. Martin-le-grand. I may also state, that there are two church-yards in Dublin, in which putrefaction is effected very differently. In St. Michan's the bodies are converted into a adipocire, as the soil is remarkably dry; in St. Kevin's, the soil is so moist, that while a grave is being made, it becomes nearly filled with water, and here the dead body is decomposed in a very short time. The exact time when a dead body is partially or completely converted into adipocire, has been a matter of legal inquiry. Dr. Male, one of our earliest writers on Medical Jurisprudence, relates the following interesting case:—

At the Lent Assizes, held at Warwick, in the year 1805, a cause was tried, in which a gentleman, who was insolvent, left his own house with the intention, as it was presumed from his preceding conduct and conversation, of destroying himself. Five weeks and four days after that period his body was found floating down a river. The face was disfigured by putrefaction, and the hair separated from the scalp by the slightest pull; but the other parts of the body were firm and white, without any putrefactive appearance. The clothes were unaltered, but the linen was exceedingly rotten. On examining the body, it was found that several parts of it were converted into adipocire. A commission of bankruptcy having been taken out against the deceased a few days after he had left his home, it became a question of great importance to the interests of his family, to ascertain whether he was living at that period. From the changes which the body had sustained, it was presumed that he had drowned himself the day he left home; and to corroborate this presumption, the evidence of Dr. (now Sir Geo.) Gibbes, of Bath, was required, as he had lately been engaged in experiments upon this subject. He stated on the trial, that he had procured a small quantity of this fatty substance, by immersing the muscular parts of animals in water for a month, but that it required five or six weeks to produce it in any quantity. Upon this evidence the jury were of opinion that the deceased was not alive at the time the commission was taken out, and the bankruptcy was accordingly superseded.

Sir G. Gibbes, of Bath, found that lean beef, secured in a running stream, was changed into fat in three weeks, and into adipocire in a month, but not in any quantity, sooner than five or six weeks. (Phil. Trans. 1794). Grave diggers assert that a period of three years is required to change a human body into adipocire. They doubtlessly refer to bodies buried in earth, or in moist church-yards, and not to those immersed in water. It does not form when the body is placed on the ground, or freely exposed to the air. (Partington's British Cyclopædia, division Nat. Hist., p. 36).

The conclusions of M. Orfila, drawn from his experiments on four bodies, interred in different soils in Paris, in 1830, are the most satisfactory, so far as they extend, that have been published. The four earths were sand, the earth of the cemetery of Bicêtre, the earth of the garden of the Faculty, and terreau, or vegetable earth:—1, that putrefaction did not progress with the same rapidity in the four different earths on which the observations were made; 2, that it was much slower in the sand, and much quicker in black humid earth (terreau *) than in any other earth, until a certain quantity of adipocire be formed†; 3, at this epoch, putrid decomposition has made, on the contrary, much greater progress, in those places in which there was least rankness, as in the earth of Bicêtre, than in the terreau and in the earth of the garden of the Faculty, which contains more of it; and that if in sand, where there was no soap found, putrefaction was much less advanced, that would intimate that this earth enjoys, to a great degree, the property of retarding decomposition; 4, that all earths do not equally possess the power of effecting the saponification of our tissues, and that in general terreau and vegetable earth seem to be

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* Terreau—a black carbonaceous pulverulent substance, which remains after the putrefaction of vegetable and animal matters. (Dict. des Termes de Med., &c. Par MM. Begin, Jourdan, &c.) According to the Dict. of the Acad., it is vegetable earth. In the back settlements of America there is a rich mould formed by the detritus or remains of decayed vegetables, somewhat similar to peat or bog earth, sometimes called peat or turf mould.

† These results do not agree with those which Thouret is said to have mentioned, in a report made to the Royal Academy of Sciences, in 1738, by Lémery, Geoffrey, and Hunauld. The experiments of these learned individuals induced them to admit that, in general, it is in proportion to its facility of absorbing or transmitting gases, that putrefaction in earths presents many varieties; thus, dry sand would, of all earths, be that which would favour most the decomposition of bodies, whilst argillaceous and compact earths would retard it. All our researches to discover, this report having been fruitless, it is impossible for us to judge of the value of the experiments on which it was based; and the results of which appear so extraordinary.

those that best and most quickly produce it; 5, that this fatty transformation appears to begin from the skin and subcutaneous cellular tissue, and afterwards extends to the muscles; 6, that whatever may be the rapidity with which putrefaction advances, until the period at which saponification has attacked a sufficiently large part of the skin, it stops in some measure, from that time, or, at least, does not advance in the same progress; then, instead of softening more and more, of becoming pultaceous, and of disappearing, the subjacent tissues become adipocire (gras), and terminate by forming a greyish white, dry mass, in which it is no longer possible to recognise them. (Op. cit.)

In all trials for murder, the medical witness may be called on to state how long the deceased has been dead, and the preceding observations will assist him in giving a probable, and in many cases, a positive answer.

In concluding this important subject, I deem it essentially necessary to cite the latest and the best British physiologist on the putrefaction of organic matters.

The following account of putrefaction will be found in Dr. Fletcher's Rudiments of Physiology, Edinburgh, December, 1835, and throws great light on the subject:—

"The more or less rapid spontaneous decomposition of organic matters, if ternary or quaternary, when deprived of their irritability or vitality, arises from the complexity of their combination being such as rarely to allow of the affinities of any of their elements being fully saturated. The oxygen in them, for example, is not in sufficient quantity to saturate their hydrogen and carbon—therefore they are all inflammable; and the constant tendency of all their elements to run into binary, instead of tenary or quaternary compounds, is such as to effect, under favourable circumstances, their speedy separation. The most remarkable kind of spontaneous decomposition of quaternary organic compounds is putrefaction. In this case, if the substance which is about to undergo it, whether vegetable, as extractive or animal, as sodo-albumen or gelatin, be exposed to the atmosphere, it first acquires from it more oxygen, and thus are formed, with a portion of the hydrogen and carbon, water and carbonic acid. In the mean time, other portions of each of the latter, uniting together, form carburetted hydrogen; while the remainder of the hydrogen, uniting with the nitrogen, forms ammonia—the distinctive product of this kind of decomposition. This process is commonly very rapid in animals suddenly deprived of their irritability, as by electricity, &c., and is favoured by any means which either diminishes the cohesion of the particles of the substance, or exerts an affinity for any one of the resulting binary compounds, the free access of the atmosphere being, of course, essential to it. It is accordingly in the former of these ways that a moderate temperature, such as that between 60 and 80 degs. and a moderate supply of moisture, promoted, of course, by the contact of deliquescent salts, seem to operate; while it is in the latter way that lime and other matters generally called septic, which predispose to the formation of carbonic acid, &c., appear to act*. On the other hand, the process is retarded by any means which either increases the cohesion of the particles of the substance, exerts an affinity for the quaternary compound as it is, or excludes the air. It is, accordingly, upon the first of these principles, that either great heat or great cold seem to operate, the former by drying up, and the latter by congealing moisture†; it is partly upon the first, and upon the second principle, that numerous matters, commonly called antiseptic, such as alum, nitre, sea salt, and corrosive sublimate, appear to act; while it is upon the third principle chiefly, that keeping the substance in full and well-stopped bottles, or in carbonic acid or other gases, or smoking it, or imbuing it with wax, honey, sugar, gum, resin, balsam, pitch, paint, varnish, oil of turpentine, alcohol, vinegar, and so forth, seems to produce the effect in question‡. If, again,

* Hence the common practice of putting lime into the coffins of persons who have died of really or reputedly contagious diseases—a practice somewhat superfluous, perhaps, since such diseases pretty certainly cease to be contagious long before decomposition, however accelerated, can take place.

† It is sufficiently well known that dead bodies, left either on burning deserts, or in the glaciers of Alpine districts, do not undergo this change.

‡ It is remarkable how soon the practice of embalming, which is supposed to have originated in a belief in the celebrated doctrine of the metempsychosis, led to a knowledge of the influence of all these solid and liquid substances in preventing the decomposition of the dead, with the exception of corrosive sublimate, oil of turpentine, and alcohol, with which mankind were not acquainted till the age of the Arabian physicians, who introduced, for the first time, the art of sublimation and distillation. The word mummy is said to be derived from the Egyptian *mum*, or wax, as embalming is from the *balm* employed in the process.—(See Dr. Granville's and Mr. Pettigrew's recent Essays). The ancient Jews, Greeks, and Romans, commonly burnt their dead, but were accustomed to preserve their organic rarities in honey, as we do in alcohol. Savages often, in the present day, smoke-dry their dead, by way of preserving

a substance susceptible of putrefaction, be kept in water, it undergoes these changes more slowly; and, provided there be present at the same time any acidifiable matters, such as stearin or elain, the results are different from those just stated. In this case the water, if not retained undecomposed by a mixture with it of alcohol, or any other substance having a strong affinity for it, first affords the requisite oxygen, and the same, or nearly the same, results as in the former case, are at first produced. But now the ammonia, instead of being dissipated, seems to remain in contact with the substance, and to predispose the acidifiable matters to absorb oxygen and to become acid, which acid, subsequently uniting with the ammonia, gives rise to a kind of salt or soap, called adipocire. It was, till lately, believed that none but the fibrinous parts of animals, when interspersed with fat, were capable, under favourable circumstances, of undergoing this change; but it has been recently established that the albuminous and gelatinous parts are equally liable to it. Lastly, quaternary organic compounds, when below ground, undergo changes, according as the soil is either dry or moist, similar to those which they undergo in either air or water; but, generally speaking, more slowly than in either, particularly if they have been well enclosed and buried deep; if, however, such changes have begun to take place previously to burial, it is important to know that they are not retarded by this measure. The decomposition of interred human bodies has been said to be, under ordinary circumstances, perfect at the expiration of about three years, if the grave be four feet deep, and of about four years, if it be six. Upon what principle it is to be explained that such spontaneous decomposition of the animal body does not always take place, even when no extraordinary means have been employed to prevent it, or certainly not within the usual period, is quite unknown.* Such, however, is said to have been the case in not a few very remarkable instances, but the authenticity of the majority of these is somewhat questionable.

"During all the above, and other decompositions of organic matters, myriads of minute plants, called mould, &c., and of animalcules, according to the nature of the matters so decomposed, usually manifest themselves. This phenomena was, till lately, in general attributed to the development, in the matters undergoing decomposition, of minute germs, which were presumed to be universally disseminated, but to become developed only when they met with a congenial soil, such as that afforded by the products of decomposition. Of late, however, this hypothesis has been, in a great measure, superseded by another, which ascribes these plants and animalcules to the retention, by a portion of the extractive, sodo-albumen, gelatin, and so forth—the globules of which, it must be remembered, are regarded as monads, or organic elements, or molecules—of their supposed aptitude for life, so that certain globules of these matters take on, more or fewer of them together, the form of distinct organized beings. It has been already mentioned, that the highest tribes of plants and animals have been supposed to differ from the lowest, as well as the perfect plant and animal of every tribe from its earliest germ, only in the circumstance of more monads or organic molecules—the primary, as well as continual source of which is the aliment—entering into their composition. Hence it is easy to conceive that, as a progressive coalition of these molecules might, at the creation, form in succession each higher species of organized beings from those below it, as well as during the development of each individual in its generation, carry it successively through all the inferior types till it finished with its own, so a separation of the same monads or molecules might, either as passed off with the excretions, or on the final decomposition of each individual of a higher species, again give rise to innumerable individuals of a lower grade; the same being ready subsequently to contribute, either by receiving into themselves new monads or organic molecules, or furnishing the same or other organized beings, to the formation again of any mode of organized existence superior to themselves. And that such is the origin of the mould and animalcules in question, has been inferred from the globules of such organic matters having been observed to be, in all such cases of spontaneous decomposition, in constant agitation; and from such mould and animalcules having been detected in infusions of organic substances, during their decomposition, even when these substances have been previously exposed to a heat sufficient, it is presumed, to destroy all germs, when only distilled water has been used, and when the infusion has been kept constantly *in vacuo*. But that the doctrine of the perpetual transmigration of any supposed organic molecules, whether well or ill-founded, cannot apply to the globules of extractive, sodo-albumen, gelatin, &c., which are pretty certainly not identical with them, and have not the aptitude for life alluded to, is obvious; and it is equally so that it cannot be true of the really organic molecules, if we believe that it is into extractive, sodo-albumen, and so forth, that these molecules, or the organized tissues composed of them,

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them; but in some places, as Nova Scotia and Otaheite, as well as among the Guanches, an aboriginal tribe of Teneriffe, embalming seems to have been in use from time immemorial.

are, on the cessation of their vitality, converted. It is a fair objection, likewise, to the hypothesis in question, or rather to an immediate corollary from it—namely, that the whole of organized nature consists at all times, and has at all times consisted of the same definite number of organic molecules—that a very considerable proportion at least of extractive, sodo-albumen, &c., is certainly resolved into merely mineral substances in every instance of the decomposition of organic matters—else whence the carbonic acid, carburetted hydrogen, and ammonia, which they evolve? and as these substances must—unless the organic kingdoms of nature are gradually failing from off the face of the earth—be continually renewed, in the same proportion, by combinations of mineral substances, there seems to be no good reason why the whole of such substances should not be capable of being so resolved and so renewed. It would be premature in this place to expatiate on the obscure subject of generation, involving as it does the important question of the nature of life, which is so soon to occupy our attention; but it may be allowable to state here, that nothing hitherto adduced in support of the hypothesis now under consideration, seems to be at all less easily explicable on the old doctrine of universally diffused germs, than on the new one of perpetually transmigrating organic molecules. With respect to the constant agitation of globules said to be observed in the infusions of organic matters during their spontaneous decomposition, a similar phenomenon has been noticed during the mechanical separation of particles of sulphur, flint, glass, manganese, and other mineral substances, in which the existence of organic molecules was out of the question; and with respect to the development, in the former, of mould and animalcules, when they have been exposed to heat, immersed in distilled water, and kept *in vacuo*, it is easy to conceive that minute germs may have been as competent to resist heat without destruction, as organic molecules; and that such minute germs may as well have been contained from the first in and about the matters undergoing decomposition, as that they could find access to them only during their decomposition with the water or the atmosphere. Nor will the countless myriads of new beings, frequently so developed, appear to be any objection to this explanation, when we reflect on the incalculable rapidity with which, once evolved, they perpetuate their species. Upon the whole, the difficulty of accounting, upon commonly received principles, for the phenomena in question, does not appear to be so great as to warrant our adopting so overwhelming an hypothesis, as that proposed as an alternative, in order to explain it." R.

(*To be continued*).

Reviews.

The Principles and Practice of Surgery, founded on the most extensive Hospital and Private Practice during a period of nearly fifty years, with numerous Plates of both healthy and diseased Structure. By Sir Astley Cooper Bart. F.R.S., Serjeant Surgeon to the King &c., &c. Edited by Alexander Lee, M.A. M.D. &c., 8vo. Eighteen coloured Plates: London: E. Cox. 1836.

THERE never was a work which did more for the diffusion of sound surgical knowledge than the publication of the lectures of Sir Astley Cooper. It made every scientific member of the profession acquainted with the principles of surgery. Its illustrious author has been long and justly styled the first surgeon in the world. His original works on Inguinal and congenital Hernia, on Dislocations and Fractures, on Diseases of the Female Breast, and on the Anatomy and Diseases of the Testis, will be esteemed so long as Surgery is cultivated. These treatises were published in quarto, illustrated with numerous coloured plates, and rendered inaccessible to nine tenths of the profession. This evil was long felt, and many grieved that the works of such a master were placed beyond their reach. Under such circumstances the editor has undertaken the republication of all the works, illustrated with splendidly executed coloured plates, and all revised by the celebrated author. The present volume of this edition of Sir Astley Cooper's works contains thirty-eight lectures, beautifully printed and enriched with the engravings of the Anatomy and Diseases of the Testis, which are graphically and correctly coloured after nature, and contain numerous figures. The plates are fully equal to the original, and have been executed by the same artist who executed them. Sir Astley's work on the Testis cannot be procured for less than three guineas, and here it is at less than half the price, besides a large portion of his surgical lectures.

It is a remarkable coincidence that the complete works of Sir Astley Cooper have been just translated into French and published in Paris, without plates*.

* Œuvres Chirurgicales Complètes de Sir A. Cooper traduites de l'anglais avec des notes. Par. MM. Chassaignac, et G. Richelot.

Our Gallic contemporary thus speaks of the work—"This is what the critics of former ages would have justly called a book of gold—*liber aureus*. A year has scarcely elapsed, since we compared with confidence our Dupuytren to the Sir Astley Cooper of the English; but now, more fortunate than we are, English surgery possesses, in his different works, most of the standard opinions of him whom they acknowledge as their chief; and is Dupuytren dead, without have having raised that monument of his celebrity, which Sir Astley Cooper has taken care to erect for his?"* We feel pride and pleasure in quoting the sentiments of the best reviewer in France, as they entirely accord with our own. We need say no more of this complete edition of Sir Astley Cooper's works, revised by himself, carefully and ably edited, and spiritedly and most reasonably published. It cannot fail to find a prominent place in every medical library, and already it has been procured by most of our eminent medical practitioners. It is the first complete edition of Sir Astley Cooper's valuable works in our language.

HOMŒOPATHY—LATEST CHARLATANISM.

We are very much surprised to observe the subject of homœopathy discarded in Germany, which gave it birth, and also in France, very gravely introduced to the consideration of two of our medical Societies, by our very respected friends Dr. Uwins and Mr. Kingdon. We thought that the world was aware of the emigration of Hahnemann, the father of this doctrine, from Germany to Paris, where he has signally failed, after the Royal Academy of Medicine had reported to government its absurdity. We can bear testimony, from considerable personal observation, of the inefficacy of this system. One of our colleagues at a public institution, requested us, as sceptics, to allow a homœopathist to treat some of our patients on the new system. We consented, on the terms that he should leave us to treat severe acute diseases on the principles now received by the profession. The disciple of Hahnemann cheerfully agreed to the terms, and invariably selected nervous, hysterical, or chronic cases. We saw him administer his remedies, and heard the report of the results. Most of his patients were one day better, and another worse, pretty much after the good effects of Dr. M'Leod's, "Pilulæ Micæ panis." We never saw one case in which the homœopathic treatment was effectual. It was applied to necrosis of the tibia of a boy, together with a few drops of sulphuric acid largely diluted with water The disease appeared to improve at first, but, no real benefit ensued.

The great Dr. Johnson used to say that the reason why quack medicines succeed so well in England resulted from the fact that nine-tenths of its inhabitants were fools as far as regarded medical affairs. However cynical such an opinion may appear at the first glance, it nevertheless contains much truth. What but the most profound ignorance, or the blindest enthusiasm, could lead people to believe in the discovery of the "Philosopher's Stone" in medicine—the universal remedy—or in other words, the universal humbug? It matters not how absurd the doctrines advanced by the advocates of a new system; whether, according to the disciples of St. John Long, mercury can be drawn from the cranium by mere touch—whether the swallowing of a hundred pills a day, according to Morrison, can cure all ailments of body or mind; or whether, according to the doctrine of Hahnemann, the administration of a decoction of chamomile makes the teeth of a child longer.—No, it matters not, it is novel—and whatever is novel must succeed,—at the expense not only of money but of health—not only of health but of life! And they who were at first staunch advocates of a new system—when it becomes thoroughly known and understood, by the Coroners' Inquests and the Old Bailey Trials it produces, are the first to condemn it, and fly to another system, having the advantage of only being still more novel.

"The air hath bubbles as the water hath, and *these* are of them!"

People are apt to ridicule the practice of the celebrated Sangrado, and his rival—forgetting that the patients of the physicians of Santalline were less foolish than themselves, when they jump into the vortex of quackery—advocate absurdities of the most glaring

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* Gazette Medicale de Paris, No. 3. Samedie 30, Janviere 1836.

character, and risk their health and life in the most wanton and wicked manner. And who are the chief advocates of the quack? Why, the very persons who should set a better example!—THE ARISTOCRACY OF ENGLAND.

The wild theory of Hahnemann is equal to the less visionary one of Morrison—and now it is the fashion, instead of swallowing a hundred pills a day—to be contented with the 3000th part of a grain of camphor in the same period of time! Well might we parody the celebrated distich of Hudibras, with regard to these doses given in acute diseases.

"*Homœopathic* doses of medicines
Which whosoever *took* are dead since."

The Hahnemannian theory will no doubt share the fate of its predecessors—but it may cost more than many of them have done. The sacrifices to its influence will probably be more fearful and more melancholy than even those that have already been offered up on the shrine of the "Universal Remedy."

WESTMINSTER MEDICAL SOCIETY.

To the Editor of the London Medical and Surgical Journal.

SIR—I am sure you will allow me to say, that your reporter for Saturday, Jan. 30th, in some measure misunderstood me when he represented me to assert that "there must be some mixture of truth with the errors belonging to the system of homœopathy." My statement was nearly this, that a doctrine supported by such a man as Dr. Quin, seemed to demand investigation—assuming for myself at the same time, that I was totally ignorant of even its leading principles—and, therefore, protesting against the possible inference, that I purposed either its advocacy or its condemnation.

The reader of the report, too, would imagine that Dr. Quin is resident in Paris, whereas London has been, for the three or four past years, and is now, the theatre of his extensive practice. I am not sorry that the subject has been brought forward before such a body as the one above referred to; for, its introduction to the Society, together with the reading of a masterly paper "on small doses of medicine," by my friend, Dr. Stewart, elicited three addresses to the Chair; which, for perspicuous reasoning, lucid argument, and powerful eloquence, I scarcely recollect to have been equalled in any medical debate at which (and they are not a few) I have been present. The speeches to which I allude, were by Dr. A. T. Thomson, Mr. Johnson (the son of Dr. J. Johnson), and Dr. Addison.

These gentlemen are *not* my personal friends, and, therefore it is, that I speak with the more freedom of their powers, levelled, too, as they all were, against your humble servant—in his capacity of friend and advocate of Dr. Quin—who, though he may be a mistaken, is I pledge all my character for discernment, a principled and an honourable man.

The debate will be continued on Saturday the 13th, and I anticipate another "feast and *flow*"—at any rate there will be an *allopathy* to dulness.

I am, Sir,
Yours, truly,
DAVID UWINS.

Bedford Row, Feb. 8th, 1836.

NOTE FROM DR. HANCOCK.

WE have received the following note from Dr. Hancock, respecting an advertisement which has been most extensively circulated, and which makes use of his name, as well as those of many other eminent medical men, in an unauthorized and most unwarrantable manner. The Transactions of the Medico-Botanical Society have also been taken such liberties with, as we believe that Society will not quietly pass by. The publisher of the advertisement in question is WILLIAM BATEMAN, OF THISTLE GROVE, BROMPTON. The preparation which he praises off, and which he says is patronized by half the kings of Europe, as well as all the celebrated men in it, is Dr. Hancock's Concentrated Fermented Preparation of Rio Nagra Sarsaparilla. Bateman's agent is Dawson, of Oxford Street. We can only say, a piece of more consummate impudence and quackery was never developed in any publication we ever saw.

To the Editor of the London Medical and Surgical Journal.

SIR—I beg to state, through the medium of your Journal, that I have no knowledge or concern with certain individuals who have taken the liberty to affix my name to a preparation of *Sarsaparilla*—by printing it on the stamp—as declared, at least, in certain advertisements. Nor have I, as I find it is asserted, anything to do with sarsaparilla, or any medicinal preparation whatsoever.

Permit me also to state, that legal measures will immediately be commenced, in order to obtain redress for this most unjustifiable *freedom*—or forgery, as perhaps it might be designated.

I am, Sir, most respectfully,
Your obedient Servant,
JOHN HANCOCK, M.D.

Commercial Road.

The London Medical
AND
Surgical Journal.

Saturday, February 13th, 1836.

PURITY OF ELECTION AT THE DUBLIN LYING-IN-HOSPITAL.

In a late number we inserted the defence of Dr. Collins, of the purity of election at the Dubin Lying-in Hospital. We commented upon his advocacy as it appeared to us to deserve. We also put a few queries, which we hoped one so qualified as he, would kindly answer; but he has not favoured us with replies, for reasons best known to himself. We likewise requested some of our friends in Dublin to favour us with the desired information, and our request has been complied with, and we shall now more fully demonstrate the value of Dr. Collins' defence.

The notion of a fair election at the Dublin Lying-in Hospital is only a subject of laughter in the Irish Capital. "Dr. Collins is personally a good and kind man, and a judicious obstetrician, to use your own excellent term; but professionally, at the time he was appointed, he had no recommendation whatever, save his being the son-in-law of Dr. Clarke; and as to any other person venturing to offer himself as a candidate, except of the unco godly, both in religion and family, it was out of the question." Here is a positive proof of the justice of our strictures.

We once more leave Dr. Collins to enjoy "the distinguished honour of having been unanimously elected," when there was no opposing candidate.

Dr. Kenedy, the present master, was secured by the assistance of Dr. Collins, who in return is likely to be reinstated as master of the hospital, after the lapse of seven years—a system of re-appointment adopted by their predecessors in this hospital. This is fair play, and purity of election, with a vengeance.

Dr. Breen and Dr. M'Keever, both eminent in midwifery practice in Dublin, and the seniors of Dr. Collins and Dr. Kenedy, had not a chance of a vote, on account of their religious opinions. Behold the purity of election of the sixty-three voters lauded by Dr. Collins, "who could not be surpassed in any country as competent governors!" though our valued correspondent adds, "the masters are elected by the vilest corruption."

The gross jobbing in the government Lying-in Hospital, and the injustice done to the profession, have led to the establishment of rival institutions. The modest fee demanded, until a recent period, for six months' attendance at the Rotunda Lying-in Hospital, was twenty guineas. New establishments were opened, which are chiefly supported by individuals, and none of them by government; their fee was half this amount, which principally went to the support of the hospital, and left the wards of the rival establishment without students.

In order to annihilate these institutions, Dr. Kenedy, the present master of the hospital, lowered his fees last winter to *one half*, "for his wards were empty of pupils." Even this plan we are informed, did not succeed, as the pupils of the rival hospitals had the privilege of attending patients at their own houses, and of performing catheterism and other minor operations—advantages that Dr. K. did not allow them. He now struck on another expedient for closing the new hospitals. He advertised at the commencement of the last winter, calling upon all who had obtained diplomas at his hospital, to send in their names, that they might be inserted in the Dublin Directory, under a special head, as having *graduated* in midwifery at his hospital; thus endeavouring to shew by insinuation that his hospital was alone empowered to grant diplomas.

Many were caught by this bait, and sent in their names; but many

refused to lend themselves to the scheme.

Now, let us examine the aforesaid authority to grant diplomas, and their real value.

The authority is a charter which nobody ever saw, and which does not prevent the Dublin College of Surgeons from granting obstetric diplomas. But what is the qualification necessary for obtaining a license to practise midwifery, and incurring so serious a responsibility?

"The pupil, on entering Dr. Kenedy's hospital, may be nothing more than an ignorant apothecary's apprentice, nor not even that same—one who never saw a human subject in a dissecting room, or was in a lecture room in all his life. He is at once admitted to attend the practice of the hospitals, on paying his money, and at the end of six months, marches back to the country armed with the *parchment,* for which, in addition to the former sum, he pays two guineas; and it sets forth, that he has attended lectures and delivered women—'*Quibus permoti prædictum pro habili et obstetricii perito comprobamus.*' Armed with this document, the ignoramus settles in some country town, and points to it as putting him on an equality with some graduated physician, or educated surgeon! This is of common occurrence in every part of Ireland, but is now on the wane.

"Then, as to the examination of the diplomatist, it is a mere farce; and as to the examiners, who are they? The *master himself,* interested in getting as many pupils as possible, and therefore, of course, induced not to reject any one. The two assistants, who pay the master £300 each for two or three years' residence, and who avowedly enter the hospital to learn midwifery, and who, looking ultimately to the hospital, are almost as much interested as the master himself, in rendering the examination a farce." We should be inclined to request Mr. Warburton to move for a return of the rejected at the above hospital, during the last fourteen years, and we would venture to predict, that nobody was yet refused his twenty guineas' worth.

Yet, here is the national institution distinguished for purity of election, and fair play towards the profession. Here is a public hospital, closed against all who have not family or personal influence with the former masters, and through these, with the competent sixty governors. We repeat our former conclusion, that the election of chief physician to the large obstetric hospital of Dublin, which is supported by parliament, and is a national institution, is corrupt, most injurious to the poor, and unjust towards the profession at large. The election is a solemn, a gross job, and a disgrace to the sixty, or rather three incomparably competent governors. In proof of this statement, we again ask, what have the former masters done to advance obstetric science? Where are their works, or contributions, except Dr. Clarke's solitary report, which his son-in-law, Dr. Collins, would fain magnify into a treatise or work on midwifery? In exposing the corruption of election at the Dublin Lying-in Hospital, we meant no offence to the former or present chief physicians, or, as they are mechanically designated, the Masters of the Institution; but we exposed it as defective, and injurious to the interests of the public, and of medical science. We live in a country where faction or party is not allowed to interfere with the interests of the poor, or with those of the medical profession. Here, sixty governors, supposing the majority of them are of a certain party, dare not presume to exclude physicians of talent from a public institution, on account of their religious belief, whatever it may be, with the exception of what is called King's College, London; and in accordance with this noble principle, our reviewer denounced, and most properly so, the system of the Dublin Lying-in Hospital at the Rotunda.

But as his Majesty's representative in Ireland has undertaken the arduous task of liberalising the public institutions in Dublin, we hope his attention will be directed to the establishment which has given rise to the preceding strictures, for none stands so much in need of improvement.

LONDON MEDICAL SOCIETY.

Monday, February 8, 1836.

DR. WHITING, PRESIDENT.

Mr. Marian, who spoke in so extremely low tone of voice, that it was impossible to hear exactly what he said, related a case, the following sketch of which we believe is correct. A woman aged 47, eight or ten months ago sent for Mr. M., as she was suffering from retention of urine; she had menstruated up to 45, pretty regularly, but since that period had been affected with difficulty in passing her urine, which had increased up to the time he was called in. A catheter was after some difficulty passed, and about a pint of urine drawn off. Symptoms of inflammation of the uterus came on, but ceased under the usual treatment adopted in such cases; but the uterus remained very tender in one part, and nodulæ might be detected in it, both by examination *per vaginam*, and through the abdominal parietes. Her bowels were pretty regular; the following medicine was ordered:

Iodinæ, gr. 1-8th;
Hydriodatis Potassæ, gr., ij.

Bis in die.

This was continued for two months, and she became quite well and healthy. There was not one bad symptom produced by the iodine.

Dr. Blicke commenced the relation of a most important case bearing on a point of medical jurisprudence. We shall give it with the decision on it in our next.

WESTMINSTER MEDICAL SOCIETY.

R. QUAIN, ESQ., IN THE CHAIR.

Singular Case of Paralysis of the Eighth and Ninth pair of Nerves—Case of Emaciation—The Homœopathic Doctrine—its Absurdities.

Dr. Johnson stated a case which he had seen during the past week, and which had interested and puzzled him. It was that of a lady aged 76, the sister of the celebrated Mrs. Siddons. Two years ago I (Dr. J.) was consulted by the same patient respecting an obstinate pain in the back part of the head, with which she had been affected for twenty years. She was a fine-looking woman, *embonpoint*, and always in good spirits: he prescribed for her; he could not now precisely recollect what. He lost sight of her till last Monday, on which day he was again called to see her. Such a change in any human being he had never witnessed. She had lost every trace of her good looks; her countenance was indicative of the greatest distress; indeed, he scarcely knew her. On inquiry, it appeared that about three months ago she began to be affected with difficulty of speech, and, a few weeks after, with difficulty of deglutition; both continued to increase till three weeks since, when she lost all power over those faculties. A teaspoonful of fluid, when attempted to be swallowed, was partly thrown back: she was dying, in fact, from inanition. On examining the tongue, the sides of it were found shrivelled, the centre presented several knotty appearances. The tongue was incapable of motion; yet, with all these symptoms, and though apparently sinking from inanition, she had neither hunger nor thirst; and every other function of the body was apparently healthy: the intellect was perfect; the lips moved, so that she sometimes might be understood, but she could not articulate. She wrote down what she required on a slate. The bowels were open, and very small quantities of urine were secreted. It appeared there was paralysis of one or two nerves, the eighth and ninth. No attempt had been made to throw anything into the stomach. Dr. Johnson suggested an enema of broth and a small quantity of opium, which was retained; the following day two enemeta were given, and both retained. On the third day the stomach pump was, after some little difficulty, passed down the œsophagus; the stomach was so contracted, it would only hold seven or eight ounces of fluid, without a sensation of great distension. Injections have been daily thrown up, and she has improved gradually since Monday. To-day (Saturday) she has been able to slightly move the tongue. Dr. J. requested information on the case; he had proposed the application of galvanism to the back of the head and to the larynx. There had been some tenderness at the epigastrium, which did not, however, occur until after the ingesta, and he attributed it to that cause; a sinapism had relieved it. Yesterday there had been rather a copious motion. She had never rejected a single drop of nutriment; a quantity of pure bile was vomited up three quarters of an hour after the first ingesta.

Dr. Addison related a case of a young woman, aged 24, who is now in Guy's Hospital, as a sister, or nurse; she was admitted into the hospital about four years since, being at the time a perfect skeleton;

she had never been able for a long period to retain any thing on the stomach, everything being vomited up as soon as swallowed. The vertebræ were almost distinctly counted from the abdominal surface; the uterine function was imperfectly performed, both as to the period of its action and the quantity. It was considered there was some organic disease present; the regions of the pyloric extremity of the stomach, liver, and peritonæum were carefully examined; one gentleman thought he could detect tubercular deposits in the liver; but it was found on closer examination that the supposed tubercles were only the ends of the ribs. She was constipated, and an enema was administered; this produced a copious stool: mild anodynes were given by the mouth, and the injections continued, with the singular effect of still bringing away very large stools. She gradually recovered under this treatment; is now perfectly well, and rather fat; holding still the office of nurse or sister in the hospital.

Dr. Leonard Stewart then read his paper on the doses of medicine, in which, after speaking of the absurdity of the "universal remedy," and the uselessness of the small doses given by the homœopathist, he inquired if the homœopathists concealed any part of their system? if they did not, however much they might be led away by false reasoning or imagination, they could not fairly be called quacks. With regard to the contra-stimulant system, large doses of medicine unquestionably, in some instances, did good; but he considered the ordinary doses of medicine, as generally given, were those most to be depended on.

Dr. Johnson was inclined to think that the difference between large and small doses of medicine, as given by homœopathists, consisted in this, that the first often did great harm, and the last never could do any good, unless, indeed, the disease was cured by time. He was inclined to attach more importance to the ascertaining the nature and state of the disease, than to the administration of a particular medicine; a good diagnosis being formed, there was not much difficulty in prescribing.

Dr. Uwins thought much mischief had been done by the great use of any particular medicine, because it bore the authority of a great name—the blue pill of Mr. Abernethy might be mentioned as an instance in point—nothing could be more vague than the indications for the use of that medicine, as so extensively prescribed by that great surgeon. The subject of homœopathy having been introduced, he might remark that Dr. Quin* had cured Lord Durham of a disease which had resisted the medicines prescribed by almost all the eminent practitioners in the metropolis: his Lordship was put to great pain at first by the medicines given by Dr. Quin, he (Dr. U.) supposed from the doses of the medicine being very large.

Dr. A. T. Thomson contended, that the effects said to be produced by the homœopathic doses of medicine, were purely the result of imagination—medicine could only do good by the physiological influence it exerts, and he knew no physiological fact which could induce him to believe that homœopathic doses could ever be of any use. He differed from Dr. Johnson in thinking that the knowledge of the indications of disease was the main thing in the practice of physic: he (Dr. T.) considered it was quite as important to know the quantity of medicine, and the time it was most proper to give it.

A very long and animated discussion followed respecting the homœopathic doctrine and practice.

Dr. Johnson stated that he had lately been looking over Hahnemann's Formula, published since in England by Dr. Quin, who lauded it to the skies, in a Latin preface; the remedies contained in the work were chiefly old remedies, that the profession had consigned to old women: there was a kind of chamomile which Hahnemann described as possessing seventy or eighty different kinds of qualities: one symptom produced by this medicine is, that "it causes the person who takes it to be sulky for two hours;" another, "the child gets sulky unless dandled in the nurse's arms,"—"the teeth chatter,"—"the teeth become elongated"!! There were other remedies, quite as absurd, treated of in the work.

Dr. Uwins defended the character of Dr. Quin.

Dr. Fergusson thought, if the homœopathists were so convinced as they said they were of the virtues of their system, that they should come before the Society, and state openly all they knew about it—that would put the Society in possession of facts that would enable it to form an opinion.

Dr. Addison contended, that if the homœopathic system was not a "philosophical lie," it might easily be proved to be true; if the grand principle the homœopathists went on, be correct, viz. that medicines produce the same diseases in large doses that they cure in smaller ones, it would be easy for the disciples of the school to take a number of hearty men, produce disease in them by

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* Dr. Uwins mentioned that Dr. Quin was now in London, in extensive practice—not "in Paris," as given in our last—the error was not, however, of much importance: every one has heard of Dr. Quin. Dr. Uwins surely did not mean to question the accuracy of any other part of the report. I have no hesitation in saying that it is *literally* correct. I find in my notes the very words I have stated him to have uttered.—*Reporter, Medical and Surgical Journal.*

medicine, and then cure them by their infinite decimal doses of medicine. It was known that belladonna would produce a red rash over the surface, but was that to be compared to genuine scarlatina? Had any member seen bark produce ague? He was convinced that in acute disease the employment of the practice by the profession must be attended with mischief.

After a few further observations, the Society adjourned.

ON THE UNCERTAINTY OF THE SIGNS OF INFANTICIDE.

THE following essay by Dr. William Hunter excited great attention, and though generally quoted, is usually given without a date. It was published in 1784 in the Medical Observations and Inquiries, Vol. VI., and is peculiarly interesting at the present period, when a mistaken poor law induces all women who are so unfortunate as to have listened to the perfidious protestations and vows of our sex to perpetrate a horrible crime, which nothing but insanity can palliate.

On the Uncertainty of the Signs of Murder, in the case of Bastard Children. By the late William Hunter, M.D. F.R.S., *Physician Extraordinary to the Queen, and Member of the Royal Academy of Sciences at Paris. Read to the Members of the Medical Society, July* 14, 1783.

GENTLEMEN—In the course of the present year one of our friends, distinguished by rank, fortune, and science, came to me upon the following occasion: In the country, he said, a young woman was taken up, and committed to jail to take her trial, for the supposed murder of her bastard child. According to the information which he had received, he was inclined to believe, from the circumstances, that she was innocent; and yet, understanding that the minds of the people in that part of the country were much exasperated against her, by the popular cry of a cruel and unnatural murder, he feared, though innocent, she might fall a victim to prejudice and blind zeal. What he wished, he said, was to procure an unprejudiced inquiry. He had been informed that it was a subject which I had considered in my lectures, and made some remarks upon it which were not perhaps sufficiently known, or enough attended to; and his visit to me was, to know what these remarks were. I told him what I had commonly said upon that question. He thought some of the observations so material, that he imagined they might sometimes be the means of saving an innocent life: and if they could upon the present occasion do so, which he thought very possible, he was sure I would willingly take the trouble of putting them upon paper. Next day I sent them to him in a letter, which I said he was at liberty to use as he might think proper. Some time afterwards he told me that he had great pleasure in thanking me for the letter, and telling me that the trial was over; that the unfortunate young woman was acquitted, and that he had reason to believe that my letter had been instrumental. This having been the subject of some conversation one evening at our medical meeting, you remember, Gentlemen, that you thought the subject interesting, and desired me to give you a paper upon it. I now obey your command.

In those unhappy cases of the death of bastard children, as in every action indeed that is either criminal or suspicious, reason and justice demand an inquiry into all the circumstances; and particularly to find out from what views and motives the act proceeded. For, as nothing can be so criminal but that circumstances might be added by the imagination to make it worse; so nothing can be conceived so wicked and offensive to the feelings of a good mind, as not to be somewhat softened or extenuated by circumstances and motives. In making up a just estimate of any human action, much will depend on the state of the agent's mind at the time; and therefore the laws of all countries make ample allowance for insanity. The insane are not held to be responsible for their actions.

The world will give me credit, surely, for having had sufficient opportunities of knowing a good deal of female character. I have seen the private as well as the public virtues, the private as well as the more public frailties of women in all ranks of life. I have been in their secrets, their counsellor and adviser in the moments of their greatest distress in body and mind. I have been a witness to their private conduct, when they were preparing themselves to meet danger, and have heard their last and most serious reflections, when they were certain they had but a few hours to live.

That knowledge of women has enabled me to say, though no doubt there will be many exceptions to the general rule, that women who are pregnant without daring to avow their situation, are commonly objects of the greatest compassion; and generally are less criminal than the world imagine. In most of these cases the father of the child is really criminal, often cruelly so; the mother is weak, credulous, and deluded. Having obtained gratification, he thinks no more of his promises; she finds herself abused, disappointed of his affection, attention, and support, and left to struggle as she can, with sickness, pains, poverty, infamy; in short, with complete ruin for life!

A worthless woman can never be reduced to that wretched situation, because she is insensible to infamy; but a woman who has

that respectable virtue, a high sense of shame, and a strong desire of being respectable in her character, finding herself surrounded with such horrors, often has not strength of mind to meet them, and in despair puts an end to a life which is become insupportable. In that case, can any man whose heart ever felt what pity is, be angry with the memory of such an unfortunate woman for what she did? She felt life to be so dreadful and oppressive, that she could not longer support it. With that view of her situation, every humane heart will forget the indiscretion of crime, and bleed for the sufferings which a woman must have gone through; who, but for having listened to the perfidious protestations and vows of our sex, might have been an affectionate and faithful wife, a virtuous and honoured mother, through a long and happy life; and probably that very reflection raised the last pang of despair, which hurried her into eternity. To think seriously of what a fellow-creature must feel, at such an awful moment, must melt to pity every man whose heart is not steeled with habits of cruelty, and every woman, who does not affect to be more severely virtuous and chaste than perhaps any good woman ever was.

It may be said that such a woman's guilt is heightened, when we consider that at the same time that she puts an end to her own life, she murders her child. God forbid that killing should always be murder! It is only murder when it is executed with some degree of cool judgment, and wicked intention. When committed under a phrenzy from despair, can it be more offensive in the sight of God, than under a phrenzy from a fever, or in lunacy? It should therefore, as it must raise our horror, raise our pity too.

What is commonly understood to be the murder of a bastard child by the mother, if the real circumstances were fully known, would be allowed to be a very different crime in different circumstances.

In some (it is to be hoped rare) instances, it is a crime of the very deepest dye: it is a premeditated contrivance for taking away the life of the most inoffensive and most helpless of all human creatures, in opposition not only to the most universal dictates of humanity, but of that powerful instinctive passion, which, for a wise and important purpose, the Author of our nature has planted in the breast of every female creature—a wonderful eagerness about the preservation of its young. The most charitable construction that could be put upon so savage an action, and it is to be hoped the fairest often, would be to reckon it the work of phrenzy, or temporary insanity.

But, as well as I can judge, the greatest number of what are called murders of bastard children, are of a very different kind. The mother has an unconquerable sense of shame, and pants after the preservation of character: so far she is virtuous and amiable. She has not the resolution to meet and avow infamy. In proportion as she loses the hope either of having been mistaken with regard to pregnancy, of being relieved from her terrors by a fortunate miscarriage, she every day sees her danger greater and nearer, and her mind more overwhelmed with terror and despair. In this situation many of these women, who are afterwards accused of murder, would destroy themselves, if they did not know that such an action would infallibly lead to an inquiry, which would proclaim what they are so anxious to conceal. In this perplexity, and meaning nothing less than the murder of the infant, they are meditating different schemes for concealing the birth of the child; but are wavering between difficulties on all sides, putting the evil hour off, and trusting too much to chance and fortune. In that state often they are overtaken sooner than they expected; their schemes are frustrated; their distress of body and mind deprives them of all judgment, and rational conduct; they are delivered by themselves, wherever they happened to retire in their fright and confusion; sometimes dying in the agonies of childbirth, and sometimes being quite exhausted they faint away, and become insensible of what is passing; and when they recover a little strength, find that the child, whether still-born or not, is completely lifeless. In such a case, is it to be expected, when it could answer no purpose, that a woman should divulge the secret? Will not the best dispositions of mind urge her to preserve her character? She will therefore hide every appearance of what has happened as well as she can; though if the discovery be made, that conduct will be set down as a proof of her guilt.

To be convinced, as I am, that such a case often happens, the reader would wish perhaps to have some examples and illustrations. I have generally observed, that in proportion as women more sincerely repent of such ruinous indiscretions, it is more difficult to prevail upon them to confess; and it is natural. Among other instances which might be mentioned, I opened the bodies of two unmarried women, both of them of irreproachable and unsuspected characters with all who knew them. Being consulted about their healths, both of them deceived me. One of them I suspected, and took pains to prevail with her to let me into the secret, if it was so; promising that I would do her the best offices in my power to help her out of the difficulties that might be hanging over her: but it was to no purpose. They both died of racking pains in their bowels, and of convulsions. Upon laying out the dead bodies, in one of the cases a dead child, not come to its full time, was found lying between the unhappy mother's limbs; and, in the other, a very large dead child was discovered, only half-

born. Such instances will sufficiently shew what a patient and fixed resolution the fear of shame will produce. A young unmarried woman, having concealed her pregnancy, was delivered during the night by herself. She was suspected; the room was searched, and the child was found in her box, wrapped up in wet clothes. She confessed that the child was her's, but denied her having murdered it, or having had an intention to do so. I opened the child, with Mr. Pinkstan, of St. Alban's-street, and the lungs would not sink in water. Her account of herself was this: she was a faithful and favourite servant in a family, which she could not leave without a certainty of her situation being discovered; and such a discovery she imagined would be certain ruin to her for life. Under this anguish of mind she was irresolute, and wavering from day to day as to her plan of conduct. She made some clothes for the preservation of her child (a circumstance which was in her favour), and she hired a bedroom in an adjacent street, to be ready to receive a woman in labour at a moment's notice. Her scheme was, when taken in labour, to have run out to that house, to be delivered by a midwife, who was to have been brought to her. She was to have gone home presently after, and to have made the best excuse she could for being out. She had heard of soldiers' wives being delivered behind a hedge, and following the husband with the child in a short time after; and she hoped to be able to do as much herself. She was taken ill of a cholic, as she thought, in the night; put on some clothes, both to keep her warm, and that she might be ready to run out, if her labour should come on. After waiting some time, she suddenly fell into such racking pain and terror, that she found she had neither strength nor courage to go down stairs, and through the street in that condition, and in the night. In despair she threw herself upon the bed, and by the terror and anguish which she suffered, she lost her senses, and fainted. When she came to a little recollection, she found herself in a deluge of discharges, and a dead child lying by her limbs. She first of all attended to the child, and found that it was certainly dead. She lay upon the bed some time, considering what she should do; and by the time that there was a little day-light, she got up, put all the wet clothes and the child into her box, put the room and bed into order, and went into it. The woman of whom she hired the room, and who had received a small sum of money as earnest, though she did not know who she was, swore to her person, and confirmed that part of her story. Mr. Pinkstan and I declared that we thought her tale very credible, and reconciled it to the circumstance of the swimming of the lungs, to the satisfaction of the jury, as we shall hereafter do to the reader. She was acquitted; and I had the satisfaction of believing her to be innocent of murder.

In most of those cases we are apt to take up an early prejudice; and when we evidently see an intention of concealing the birth, conclude that there was an intention of destroying the child; and we account for every circumstance upon that supposition, saying, why else did she do so and so? and why else did she not do so and so? Such questions would be fair, and draw forth solid conclusions, were the woman supposed at the time to be under the direction of a calm and unembarrassed mind; but the moment we reflect that her mind was violently agitated with a conflict of passions and terror, an irrational conduct may appear very natural.

Allow me to illustrate this truth by a case. A lady, who, thank God! has now been perfectly recovered many years, in the last months of her pregnancy, on a fine summer's evening, stept out, attended by her footman, to take a little air on a fine new pavement at her own door, in one of our most even, broad, and quiet streets. Having walked gently to the end of the street, where there was a very smooth crossing place, she thought she would go over, for a little variety, and return towards her house by walking along the other side of the street. Being heavy, and not unmindful of her situation, she was stepping very slowly and cautiously for fear of meeting with any accident. When she had advanced a few steps in crossing the street, a man came up on a smart trot, riding on a cart, which made a great rattling noise. He was at a sufficient distance to let her get quite over, or to return back with great deliberation; and she would have been perfectly safe if she had stood still. But she was struck with a panic, lost her judgment and senses, and the horror of confusion between going on, or returning back, both of which she attempted, she crossed the horse at the precise point of time to be caught and entangled in the wheel, was thrown down, so torn and mashed in her flesh and bones, that she was taken up perfectly senseless, and carried home without the least prospect of a recovery. This lady was in the prime of life, living in affluence, beloved by her family, and respected by all the world. No imagination could suggest an idea of her intending to destroy herself; but if her situation in life at that time could have favoured such a supposition, we see in fact that the most unquestionable proof that she could have saved herself, either by going on, or by turning back, or by standing still, would have signified nothing towards proving that she had intended to put an end to her own life, and to that of her child. One shudders to think that innocent women may have suffered an ignominious death from such equivocal proofs and inconclusive reasoning.

Most of these reflections would naturally occur to any unprejudiced person, and therefore upon a trial in this country, where we are so happy as to be under the protection of judges, who by their education, studies, and habits, are above the reach of vulgar prejudices, and make it a rule for their conduct to suppose the accused party innocent, till guilt be proved. With such judges, I say, there will be little danger of an innocent woman being condemned by false reasoning. But danger, in the cases of which we are now treating, may arise from the evidence and opinions given by physical people, who are called in to settle questions in science, which judges and jurymen are supposed not to know with accuracy. In general I am afraid too much has been left to our decision. Many of our profession are not so conversant with science as the world may think; and some of us are a little disposed to grasp at authority in a public examination, by giving a quick and decided opinion, where it should have been guarded with doubt; a character which no man should be ambitious to acquire, who in his profession is presumed every day to be deciding nice questions upon which the life of a patient may depend.

To form a solid judgment about the birth of a new-born child, from the examination of its body, a professional man should have seen many new-born children, both still-born, and such as had outlived their birth a short time only: and he should have dissected, or attended the dissections of a number of bodies in different stages of advancing putrefaction. I have often seen various common and natural appearances, both internal and external, mistaken for marks of a violent death. I remember a child which was found in a compressed state and globular form, and, like hardened dough, had retained all the concave impressions which had been made where any part of the skin and flesh had been pressed inwards. The jury had got an opinion that this moulding of the flesh could not have happened, except the infant had been put into that compressed state while it was alive. My anatomical employments enabled me to remove all their doubts about the fact. I offered to make the experiment before them, if they pleased; the child should be laid in warm water, till its flesh should become soft and pliable, as in a body just dead; then it should be compressed, and remain so till cold, and then they would see the same effect produced. They were satisfied, without making the trial.

In many cases, to judge of the death of a child, it may be material to attend accurately to the force of cohesion between the skin and the scarf-skin; and still more, to be well acquainted with the various appearances of the blood settling upon the external parts of the body, and transuding through all the internal parts in proportion to the time that it has been dead, and to the degree of heat in which it has been kept.

When a child's head or face looks swollen and is very red, or black, the vulgar, because hanged people look so, are apt to conclude that it must have been strangled. But those who are in the practice of midwifery know, that nothing is more common in natural births, and that the swelling and deep colour go gradually off, if the child lives but a few days. This appearance is particularly observable in those cases where the navel-string happens to gird the child's neck, and where its head happens to be born some time before its body.

There are many other circumstances to be learned by an extensive experience in anatomy and midwifery, which, for fear of making this paper prolix, and thence less useful, I shall pass over, and come to the material question, viz. in suspicious cases, how far may we conclude that the child was born alive, and probably murdered by its mother, if the lungs swim in water?

First, We may be assured that they contain air. Then we are to find out if that air be generated by putrefaction.

Secondly, To determine this question, we are to examine the other internal parts, to see if they be emphysematous or contain air; and we must examine the appearance of the air-bubbles in the lungs with particular attention. If the air which is in them be that of respiration, the air-bubbles will hardly be visible to the naked eye; but if the air-bubbles be large, or if they run in lines along the fissures between the component *lobuli* of the lungs, the air is certainly emphysematous, and not air which had been taken in by breathing.

Thirdly, If the air in the lungs be found to be contained in the natural air-vesicles, and to have the appearance of air received into them by breathing, let us next find out if that air was not perhaps blown into the lungs after the death of the infant. It is so generally known that a child, born apparently dead, may be brought to life by inflating its lungs, that the mother herself, or some other person, might have tried the experiment. It might even have been done with a most diabolical intention of bringing about the condemnation of the mother.

But the most dangerous and the most common error into which we are apt to fall, is this, viz. supposing the experiment to have been fairly made, and that we have guarded against every deception above mentioned, we may rashly conclude that the child was born alive, and therefore must probably have been murdered; especially in a case where the mother had taken pains, by secreting the child, to conceal the birth. As this last circumstance has generally great weight with a jury, I will only observe, that in fair equity, it cannot amount to more than a ground of suspicion, and therefore should not determine a question, otherwise doubtful, between an acquittal, or an ignominious death.

Here let us suppose a case which every body will allow to be very possible. An unmarried woman, becoming pregnant, is striving to conceal her shame, and laying the best scheme that she can devise, for saving her own life and that of the child, and at the same time concealing the secret—but her plan is at once disconcerted, by her being unexpectedly and suddenly taken ill by herself, and delivered of a dead child. If the law punishes such a woman with death for not publishing her shame, does it not require more from human nature than weak human nature can bear? In a case so circumstanced, surely the only crime is the having been pregnant, which the law does not mean to punish with death; and the attempt to conceal it by fair means should not be punishable by death, as that attempt seems to arise from a principle of virtuous shame.

Having shown that the secreting of the child amounts at most to suspicion only, let us return to the most important question of all, viz. If in the case of a concealed birth, it be clearly made out that the child had breathed, may we infer that it was murdered? Certainly not. It is certainly a circumstance, like the last, which amounts only to suspicion. To prove this important truth to the satisfaction of the reader, it may be thought fit to assert the following facts, which I know from experience to be true, and which will be confirmed by every person who has been much employed in midwifery.

1. If a child makes but one gasp, and instantly dies, the lungs will swim in water as readily as if it breathed longer, and had then been strangled.

2. A Child will very commonly breathe as soon as its mouth is born, or protruded from the mother, and in that case may lose its life before its body be born; especially when there happens to be a considerable interval of time between what we may call the birth of the child's head, and the protrusion of its body. And if this may happen where the best assistance is at hand, it is still more likely to happen when there is none; that is, where the woman is delivered by herself.

3. We frequently see children born, who from circumstances in their constitution, or in the nature of the labour, are but barely alive; and after breathing a minute or two, or an hour or two, die in spite of all our attention. And why may not that misfortune happen to a woman who is brought to bed by herself.

4. Sometimes a child is born so weak, that if it be left to itself, after breathing or sobbing, it might probably die, yet may be roused to life by blowing into its lungs, applying warmth and volatiles, rubbing it, &c. &c. But in the cases which we have been considering, such means of saving life are not to be expected.

5. When a woman is delivered by herself, a strong child may be born perfectly alive, and die in a very few minutes for want of breath; either by being upon its face in a pool made by the natural discharges, or upon wet clothes; or by the wet things over it collapsing and excluding air, or drawn close to its mouth and nose by the suction of breathing. An unhappy woman delivered by herself, distracted in her mind, and exhausted in her body, will not have strength or recollection enough to fly instantly to the relief of the child. To illustrate this important truth I shall give a short case.

A lady, at a pretty distant quarter of the town, was taken with labour-pains in the night-time. Her nurse, who slept in the house, and her servants, were called up, and I was sent for. Her labour proved hasty, and the child was born before my arrival. The child cried instantly, and she felt it moving strongly. Expecting every moment to see me come into her bed-chamber, and being afraid that the child might be someway injured, if an unskilful person should take upon her the office of a midwife upon the occasion, she would not permit the nurse to touch the child, but kept herself in a very fatiguing posture, that the child might not be pressed upon, or smothered. I found it lying on its face, in a pool which was made by the dicharges, and so completely dead, that all my endeavours to rouse it to life proved vain.

These facts deserve a serious consideration from the public: and as I am under a conviction of mind, that, when generally known, they may be the means of saving some unhappy and innocent women, I regard the publication of them as an indispensable duty.

Hospital Reports.

NORTH LONDON HOSPITAL.

Erysipelas—Use of the Extract of Belladonna.

Mr. Liston has again employed this medicine in erysipelas, according to the formula given in our last, with complete success. The patient was a young woman aged 24, who had been the subject of attacks of erysipelas for the last twelve years; sometimes coming on at intervals of three or four weeks; and never cured under ten days or a fortnight. When admitted, the disease had spread over the face and left ear to the occiput, and the right eye was closed, from œdema of the eyelids. She got completely well in the course of three or four days, by the belladonna mixture given as in the case reported in our last week's Journal.

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CORRESPONDENT.

We should thank "Alpha" for the article he mentions, at his earliest convenience.

All communications and books for review are to be addressed (post paid) to D. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

REGISTERED JOURNAL

THE

London Medical and Surgical Journal.

No. 4. SATURDAY, FEBRUARY 20. Vol. I.—(1836).

CLINICAL LECTURE,

ON A

CASE OF COMA APPROACHING TO ECSTASIS.

By PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Coma—Not a genuine Case of Ecstasis—Causes of Coma—The Influence of the Mind in the production of Disease—its importance in Diagnosis—Agitation, Grief, and Anxiety—Inactivity or Apathy of Mind—Frequent Causes of Convulsive, Hypochondriacal, and Maniacal Disease—Effects of Anger—of Grief—Dr. Herz's Description of a Case of Ecstasis—Treatment of Coma—Local Bleeding—Mercury—its mode of Action.

Gentlemen—I have to speak to-day of a most interesting case of coma, approaching to ecstasis.

The patient, P. H. T., aged 40, was admitted into the hospital on Nov. 24th, 1835. I will read the report as given in the ward book.

Previous History.—The patient had been labouring under great mental distress, caused by some family affairs. She has complained of pain in the back part and left side of the head, which she described sometimes as a dull heavy pain, at others as a sharp lancinating pain through the head, much increased on rising up suddenly, so that frequently she had screamed out in raising the head immediately after waking; but she has not noticed it to have been worse on laying the head down. It was much increased, too, after she was thrown off the coach, which was overturned on her journey to town about a month ago; but it did not take its origin from that circumstance, according to her sister's statement; she has been frequently confined to her bed for two or three days after violent paroxysms of rage, or great mental distress.

During the last fortnight her memory has been much impaired, and occasionally she has wandered considerably; has been exceedingly drowsy, and has slept so heavily at night, that she has been roused with great difficulty; but she was very restless, and walked about in the night, before her admission into the hospital. She has just menstruated; before the last menstruation, which was two weeks later than the usual period, she complained of a violent pain in the back. Occasionally she has complained of slight chilliness; at other times she has been very hot, but has not perspired; latterly, she has complained of most things appearing disagreeable to the taste, and everything has seemed bitter to her taste; her appetite has been impaired, her thirst great, and the bowels have been latterly confined. She was formerly very hysterical, but has not been known to be so during the last twelve months, by her immediate relatives. Previous to her admission into the hospital she was attended by a surgeon, who cupped her at the back of the neck, and gave her some medicine, but with little relief.

At the present, she is exceedingly drowsy; sleeps a great deal: her sleep is still so very heavy sometimes, that she cannot be roused by any means; she evidently displays a loss of memory, having, since her admission, frequently asked the time of the day, and the day of the week, which questions have as frequently been answered. There is a dullness of expression in the eyes—the pupils are contracted; she frequently startles with the pain in the head, and places the hand immediately behind and above the left ear, as the seat of the pain, and on pressing the fingers rather forcibly upon this spot, she shrinks from the pressure. There is no preternatural heat of the scalp, and no injury of the head can be detected. The pulse is 70, and labouring; the skin warm and dry; the tongue moist, and very slightly furred; the appetite bad; thirst rather great; the bowels confined, and the urine natural.

Nov. 25th. Appl. c. c. ad ℥ viij nuchæ. Appl. empl. lyttæ post aurem sinistram.

℞. Hydr. submur. gr. i; Ipecacuanhæ, gr. i. Ft. pil. 3tia quaque hora sumend.

27th. The pain in the head is quite as great as on her admission; she is exceedingly drowsy, and when asleep is roused with very great difficulty; the blister was applied, and she was cupped, but apparently

with no relief; the pulse is still 70, and labouring; the bowels have been opened; the fæces were rather of a dark colour, and very offensive. In other respects, she is about the same as on her admission.

℞. Antimonii tart. gr. vj; Aquæ destill. ℥ vj. M. Ft. Mist. cujus sumt. cochl. ampl. duo 3tia quaque hora.

Continuentur pilulæ.

28th. The medicine has made her very sick; in other respects there is no essential difference since the last report.

30th. She has been getting more and more drowsy since the last report; seems unconscious of everything around her; is roused with greater difficulty than before; there is no evidence of so much pain in the side of the head as there was, but a great degree of stupor; the bowels were opened yesterday; sometimes she protrudes the tongue readily on being asked—it is slightly swollen; there is a slight mercurial fœtor in the breath; pulse 84, and not so labouring, and fuller than before; the skin is warm and dry; she has not perspired; the pupils are contracted; there is no preternatural warmth of the head.

Appl. empl. lyttæ post aurem sinistram.

℞. Ammoniæ carbonatis, ℈j; Misturæ camphoræ, ℥ vj. M. Ft. mist. cujus sumt. cochl. ampl. iij, 3tia vel 4ta q. q. hora.

Omitte pilulas.

Dec. 1st. Yesterday afternoon she passed the fæces and urine involuntarily; the bowels have not been opened since; the stupor increased much towards last evening. At the present time there is a great degree of stupor; the breathing is somewhat resembling stertorous breathing; there is no preternatural heat of the scalp; the pupils are very contracted; the eyes more sunk within the orbits than before; occasionally the integuments of the forehead are corrugated; there is some difficulty in getting her to put the tongue out, and it is retracted very slowly after she protrudes it; it is much swollen, is covered with a white fur, is sharp at the edges, and indented by the teeth; the cheeks are slightly swollen; there is now the mercurial fœtor in the breath; the gums are tender; the pulse is 104, fuller and stronger; skin warm and moist; she has perspired a good deal since yesterday; she has passed the urine involuntarily; lies quite motionless, but has some degree of consciousness—was aware of her sister being with her, and sometimes answered rationally questions that were put to her.

2nd. She lies quite motionless; the countenance has a bloated appearance; the lips and cheeks are of a bluish tinge, and are moved outwards during expiration; the eyes are sunk within the orbit; the pupils are very contracted; the eyelids do not close perfectly after being separated; forehead corrugated; there is very little, if any, preternatural heat of the scalp; the pulse is 116, strong, full, and rather intermittent and irregular; she is not capable of protruding the tongue; the mercurial fœtor continues in the breath; the respiration is rather hurried and stertorous; it is occasionally attended with a noise *during expiration*, as if expressive of great pain—she sighs occasionally; the skin is warm and moist; the bowels have not been opened to-day; the urine is passed involuntarily; thirst not great; she has taken a little beef tea.

Appl. c. c. ad ℥ viij temporibus.

The stertorous breathing was somewhat diminished after the cupping, but it increased again towards the evening: she was conscious of the operation.

3rd. The stupor is not so great as yesterday; she protrudes the tongue on being asked, which is still swollen, and is covered with a whitish brown fur; she complained this morning of pain in the lower part of the back. The countenance has not such a bloated appearance, but it is more cadaverous; the eyes are more sunken, and surrounded with a dark areola; temples flattened, cheeks emaciated, nose very sharp, and there is no colour in the face. The pupils are alternately contracted and dilated, sometimes not larger than a pin's head, and at others forming more than one-third of the transparent cornea; the cheeks and lips are not puffed out during expiration, as they were yesterday; the forehead is not corrugated; the eyelids are not quite closed; the breathing not quite so quick and stertorous; indeed, the quick and noisy respiration seems to come on in paroxysms of about ten minutes' duration, and there is an intermission of comparatively free and easy respiration for about the same period. The pulse is 140, strong, and rather full—not perceived to be irregular or intermittent to-day; the bowels have not been opened since the 30th. Mr. Taylor ordered—

Empl. lyttæ capiti raso,

Ol. ricini, ℥ vj, statim sumend.

The bowels were opened very freely soon after the castor oil had been administered: the fæces were not particularly offensive, or of unnatural colour—they were not passed involuntarily: this evening, the nurse observed some convulsive movements of the upper and lower extremities, but these were slight, and of short duration.

4th. Our patient to-day is very much improved; the appearance of the countenance is much better; she is quite sensible; the pulse is 105, smaller and weaker than yesterday; respiration quite easy and of natural frequency; the skin cool and dry; the tongue coated with a whitish-brown fur; the bowels open, and the fæces and urine passed involuntarily; the pupils are not so much contracted, and there are not the alternations of contraction and dilatation, as before: she complains of pain in the lower

part of the back; there is great tenderness of surface over the chest and down the spine—and she had the globus hystericus this morning, accompanied with some difficulty in swallowing. Ordered to take a small quantity of white wine whey occasionally.

℞. Hydr. submur. gr. i, hora somni quotidie sumend.

5th. No essential difference since the last report.

7th. The countenance is still improved; the pupils are not very contracted; the pulse 102, rather small and weak; respiration natural; skin cool and dry; tongue slightly covered with a whitish fur; bowels open; the fæces and urine were passed involuntarily; for the last two days she has been very cold during the days, and very warm during the evenings and nights; and after having been warm a short time she has perspired freely.

℞. Inf. cinchonæ, ℥ iss, 2nda quaque hora sum. donec paroxysm, cal. accesserit.

Dec. 8th. This afternoon she was attacked with a sharp pain in the left side of the chest, soon afterwards her head was very hot, the beating of the carotid and temporal arteries was very strong; but the pulse weak and 130; respiration quicker again, and rather laborious; the skin warm and rather dry; she is more drowsy, the pupils are rather more contracted, bowels open, and the fæces and urine were passed involuntarily.

Appl. c. c. ad. ℥ vij., nuchæ.

She was sensible of the cupping; and after the operation the pulse became fuller, the action of the carotids and temporals much diminished in strength, and the heat of the scalp much less; about two hours after the cupping, she was warm and covered with a profuse perspiration; she has eaten nothing lately; there is some difficulty in swallowing; she drinks a small quantity of white wine whey occasionally.

9th. The heat of the head is somewhat greater to-day than it was last night; she is very drowsy, sleeps very soundly, and for a long time; she opens her eyelids slowly when roused, and quickly relapses into her former condition; occasionally she opens the eyelids and stares about her; the pupils are rather contracted. The difficult deglutition is not constant, sometimes it is greater than at other times. The clinical clerk has told by her friends, that all kinds of tonics have always operated as stimulants, causing great excitement.

℞. Potassæ sulphatis, gr. xv.; Pulv. Rhei, gr. x. M. Ft. Pulv. h. s. hâc nocte sum.

Omittr. Inf. Cinchonæ.

11th. The head has not been quite so hot since the last report; in other respects she about the same.

℞. Ammoniæ carb. gr. vj.; inf. lini, ℥ iis, 4ta, quaque hora sum.

Allow her to have some chicken broth.

12th. Her countenance is very much improved; at times she sits up and talks quite rationally; and at times she is wandering a little in her conversation. She is still very drowsy, sleeps a great deal, and very soundly. The pulse is 104, and rather weak and irregular. The respiration is pretty tranquil; the skin is cool and dry, she does not perspire; the head is slightly warmer than other parts of the body; the tongue is pretty clean; the bowels are open, the fæces and urine are sometimes passed involuntarily, at other times not; occasionally she looks about her with a vacant stare; the pupils are contracted, and she sighs frequently.

14th. There is very little if any difference since the last report. The pulse is 106, stronger and more regular. The skin is destroyed in several patches over the sacrum, and the surface around them is swollen and red.

℞. Hydr. submur., gr. ij; Pulv. jalapæ, gr. xv. statim sumend.

℞. Argenti Nitratis, gr. x; Aquæ destill. ℥ j. M. Ft. Solut. sacro applica. cum penicillo.

Ordered to omit the white wine whey.

Professor Thomson's Clinical Remarks in Lecture.

This, gentlemen, is one of those anomalous cases usually met with, which may be regarded as a modification of coma, or rather that variety of it termed ecstasis. It cannot, however, be considered as a genuine case of that affection, but only as an approach to it. In true ecstasis the muscles are often rigid, and the body inflexible; now, nothing of this kind has been perceived in our patient; but there has been a complete suspension of sensibility; a complete defect of voluntary motion, with lethargy and stupor. The pulse has been slow and soft; and at other times so rapid and full, accompanied with so much heat of head, and general augmentation of temperature, with stertorous breathing, as to require the employment of cupping. The pupils, as in ecstasis, have also been sometimes dilated, and nearly insensible to strong light, and at another time preternaturally contracted. Deglutition has, also, been sensibly affected; and the patient has lain for hours stupid; yet has soon afterwards risen and taken some nourishment, and displayed a sufficient control over both the corporeal and mental functions.

In many instances coma, whatever variety of it is presented to our notice, can be traced to pressure on the brain arising from a variety of causes; but it may, also, arise from the opposite state, from the exhaustion of nervous energy. This condition of the brain is very frequently observed in children in the progress of recovery from meningitis;

the little patients become insensible; the pupils are dilated, the face is pallid, the pulse is feeble, and the extremities are cold; and effusion into the ventricles is supposed to have taken place; but, if we support the strength moderately with weak white wine whey, and ammonia, these symptoms gradually disappear; whilst those of returning convalescence and reaction soon display themselves. This state in infants often arises from over-depletion, particularly blood-letting.

In adults, the same condition of brain follows from over-excitement either by material or mental stimulants. For example, from over-doses of ardent spirits, or of opium, which often operate in this manner: first, exciting powerfully, and then extinguishing the nervous energy, and producing either a partial or complete prostration of all the vital powers. In our patient two causes are to be looked at—the highly sensitive and irritable condition of the nervous system, and the alternations of violent passion and hysterical depression from which she suffered previous to the overturning of the coach; and this, in my opinion, rendered the cerebral organ more liable to suffer concussion from such an accident than would otherwise have been the case. In every impulse of the mental faculties, the action of the arteries of the brain is increased, and a kind of sanguineous accumulation takes place in the vessels of the whole; thence the sense of fullness, giddiness, headach, and flushing of the face, which occur during the influence of the exciting passions; and the same phenomena are displayed by an unusual exertion of mind by those naturally delicate, or who have been weakened by disease. In every instance the irritability of the blood vessels of the brain is preternaturally stimulated, and is followed by corresponding depression and debility.

In cases of violent concussion there can be no doubt that the prostration of sensorial power is almost equivalent to that caused by compression; but, unless this is succeeded by inflammatory reaction, it gradually passes off. In the early stage of concussion the pulse is generally intermittent, a condition which was observed once only in our patient; as the stupor abates, the inflammatory action, or rather reaction, is moderate, if at all perceptible; but as the former abates the latter augments and rises often to the most alarming height. Now, in our patient, the reaction, which was so marked, came on during the existence of the stupor; and, in this respect, I am disposed to refer it rather to a congested condition of the sensorium than to the influence of the slight concussion, which might have resulted from the overturning of the coach.

The nervous temperament of this female is one which, in a hereditary predisposition to mania, would most probably have caused that disease. Indeed, instances are on record in which ecstasis has alternated with mania. In brief, whatever tends to increase the nervous susceptibility, and in such a susceptible state of the nervous system, whatever operates powerfully on the mind, namely, depressing passions, extreme sorrow, continued anxiety, disappointed or unrequited affection, or intense long-continued mental application, or violent paroxysms of anger, may tend to bring the habit into such a state that the smallest shock given to the brain may be followed by symptoms closely resembling those of ecstasis; and to the previous state of the nervous system of our patient, are we to ascribe the symptoms that have presented themselves in her case.

I cannot avoid, gentlemen, embracing this opportunity of making a few remarks on the influence of mind in the production of disease: a circumstance of great importance in diagnosis, and one too little attended to in the investigation of diseases and their treatment.

If we observe the happy influence of a tranquillized state of mind after one of agitation, grief, or great anxiety; the amended appetite, the improved sleep, the increased nutriment, the cheerful buoyancy of spirits, and the freer exercise of all the natural functions, we can have no difficulty in conceiving the detrimental power which an agitated state of the mind must exert over the nervous system. The turmoil of the passions, and the vehement impressions of which the mind is susceptible, and its inordinate exertion in any manner, exhaust the nervous energy, and so far change the actual condition of the nerves, as to alter or disturb the processes that should be performed in different bodily organs, gradually enfeebling the whole system, and inducing diseases; such, for instance, as spasms, hysteria, epilepsy, and even apoplexy and paralysis. The opposite state of the mind, that of inactivity or apathy, is equally productive of disease: the brain and nervous system languishes from defect of exercise; the influence of this is quickly displayed upon the temper, which becomes irritable and peevish, and the body, open to the attack of every form of nervous affection from causes which, under different circumstances, would have produced little or no impression upon it, tremors, apprehensions, morbid susceptibility of the slightest impressions, seem almost as if inborn in the system; strength, vigour, and happiness, the moral and social feelings, all suffer, and demonstrate the close connection between the healthful stimulus and exercise of the mental faculties, and the health of the body. It is through the instrumentality of the nerves only that mental affections can operate on organization; this influence is not confined to one set of nerves, but is equally exerted on those of sensation,

motion, and of respiration. A breath of air is not more keenly felt on the skin of a person labouring under hydrophobia, nor are convulsions more certainly the result, than the slightest mental emotion upon the nervous system of persons, the chief object of whose education has been the cultivation of acute sensibility, and affected refinement, and who have been debarred from the natural and rational exercise of both body and mind. Nor is it only in such extreme sensitiveness and mobility of frame that the influence of mental emotions displays its effects in those whose sympathetic affections have been thus unduly cherished and rendered predominant; the respiratory organs also become affected; and the whole nervous system thus suffering, convulsive, hypochondriacal, and even maniacal disorders are engendered. Not only the daily excitements and depressions of social life operate as causes of irritation, but the ordinary sources of vital motion, external stimuli, the customary exercises of the body, and even volition, become sources of actual disease. In individuals thus situated, their personal feelings constitute the sole objects of their thoughts; these are contemplated so constantly, that the mental energies at length become impaired, false notions of existence, and of the designs of Providence, spring up in the mind, and every little trifle that relates to self is magnified into matters of immense importance; it is not wonderful, therefore, in this irritable condition of the nervous system, that disease should supervene.

The external effects of anger on the body are unfortunately too frequently displayed not to be familiar to all of us. It is unnecessary for our purpose to inquire into the origin and object of the passion—we have only to investigate its corporeal effects; as soon as it arises, the impression is first felt in the heart and arteries, which are preternaturally excited, the blood is violently propelled to the surface of the body, the face glows with heat, and is flushed with blood; the eyes sparkle and are inflamed; the breathing is convulsed and irregular; whilst the muscles are thrown into spasmodic contraction, the painful feeling of which, as much as the mental affection, prompts the sufferer to give them full action; thence the expressions and gestures are always offensive, closely resembling those of maniacal rage; and thence the truth of the remark "Ira furor brevis est." The violence with which the blood is propelled to the head, and the difficulty of its return, owing to the impeded respiration, often causes the rupture of a blood-vessel in the head, and the person dies of apoplexy: or, if the blood have a tolerably free return, delirium, or epilepsy, or profuse bleedings from the nose, the ears, or the lungs, may follow a violent paroxysm of rage. The justness of the popular remark, that anger has a great influence on the liver, is frequently demonstrated in those predisposed to bilious complaints; the secretion of the bile is altered both in quantity and in quality—a circumstance, however, which is readily accounted for by the well-known sympathy which exists between the brain and liver. When the paroxysm of rage is extremely violent, it rapidly exhausts the irritability of the entire system, and faintings, convulsions, and even death have followed. It is remarkable, when we compare the signs which characterize violent rage and maniacal delirium, and observe their similarity, that insanity is not more frequently the consequence of this mental emotion; it nevertheless occasionally happens.

The depressing affections are the most detrimental to the health of the body. Instead of the vascular excitement which characterize the effects of the exciting passions on the brain and irritable parts of the system, there is a general torpor; the countenance is pale, the extremities are cold, and the skin is contracted and shrunk; the pulse becomes small and tardy, the appetite is defective, and the muscular action enfeebled, whilst a feeling of general languor overspreads the frame.

In grief these effects are especially displayed; and if it continue for any considerable length of time, the diminished nervous energy not only lessens the force of the circulation, but impedes and deranges the secretions, and finally induces organic diseases. In this manner grief seems to act as a direct sedative to the nervous system, and to exhaust its irritability without any previous increase of vascular action.

When a person is informed of circumstances that deeply affect his happiness, or his fortune, or his fame—if the intelligence be suddenly communicated, his whole muscular strength appears at once to forsake him; he totters, and even sometimes sinks to the ground, or falls into a swoon. When he slowly recovers from this torpor, if the melancholy thought recur to his mind, the syncope may again overpower him: and frequent renewals of this state either terminate in melancholy madness, or lay the foundation for many chronic complaints of the nervous system. When the causes of the grief are very deep and unexpected, the nervous exhaustion is so immediate, that the powers of sensation and motion are at once arrested; and this torpor has continued several days, during which the person has displayed neither the smallest symptoms of animation, nor taken any food whatever; this affection is termed catalepsy. Dr. Herz, a German physician, in the fifth volume of the Psychological Magazine, relates a case of ecstasis, which fell under his own observation. "A young lady," says Dr. Herz,

"who had been confined to her bed for a great length of time, with a violent nervous disorder, was at last, to all appearance, dead; her lips were quite pale, her face resembled the countenance of a corpse, and her body grew cold. She was removed from the room in which she died, was laid in a coffin, and the day of her funeral was fixed on. It arrived, and according to the custom of the country, funeral songs and hymns were sung before the door. Just as the people were about to nail on the lid of the coffin, a kind of perspiration was observed to appear on the surface of the body; it increased every moment, and at length a kind of convulsive motion was observed in the hands and feet of the corpse. A few minutes afterwards, during which time fresh signs of returning life appeared, she at once opened her eyes, and uttered a most pitiable shriek. Physicians were procured, and in the course of a few days she was considerably restored."

In this case, consciousness had not left the patient; she was aware of all that was going on around her; knew that she was in her coffin, and owed her life to the indescribable anxiety which gave activity to her mental energy, and caused it to operate on her corporeal frame. This was, correctly speaking, a case of true ecstasis; in it the individual retains perceptions of all objects connected with the thoughts and feelings that occupy his attention for the time being; but he is insensible to all other impressions; he may be pinched or pricked with pins, or beaten, without feeling or being in any degree affected by such treatment.

On the whole, as has been observed by a celebrated writer, "in every action of the mental faculties, the action of the arteries of the brain is increased, and a greater quantity of blood than usual is immediately transmitted to it; a kind of sanguineous congestion takes place in the vessels of the whole head, as is evident by the fullness, giddiness, headach, &c." The irritability of the blood vessels of the brain is, therefore, preternaturally stimulated, in the first place, by the increased quantity of blood, and a state of direct debility of the brain follows. In the next place, as all mental impressions, and their corresponding sensorial impressions become more vivid by repetition, and as all sensorial impressions capable of being transmitted to the irritable parts of the body are to be considered as stimuli to these parts; and further, as all irritable parts also become more disposed to action by repetition, and as action necessarily exhausts a great deal of the vital principle, we see the reason why all exertions of the mental faculties, when too long continued, or too violent, produce fatigue, and debilitate the corporeal part of the animal. The bad effects of this corporeal affection are often exhibited in a very powerful manner on many of the viscera essential to the healthy state of our frame. The force of the heart and arteries is diminished, and the various secretions, therefore, are often lessened; the excretions are often retained longer than they ought to be, and, like useless and foreign bodies, they irritate and cause disorders in the parts in which they are contained; respiration becomes slower and confined, the organs of digestion are impaired, and digestion and chylification are injured; hence a sense of languor, anxiety, dejection of mind, peevishness, spasmodic affections, and all the consequences of a debilitated fibre, and disordered state of nerves, ensue.

With regard to the treatment of the case under consideration, I may remark that much discrimination is requisite in every attack of coma, in resolving upon the propriety of the use of the lancet. When the coma is profound, the face flushed, the skin hot, the breathing stertorous, and the pulse hard, strong, and quick, there can only be one opinion of the propriety of venesection. The best mode of abstracting blood, however, is by leeches or cupping; and sometimes a small quantity is sufficient, and more salutary than the abstraction of a larger portion of the vital fluid. In our patient the cupping in the first instance may be regarded rather as an investigation of the real state of the encephalon than as indicated by the symptoms that presented themselves; the last was called for by the violence of the reaction that followed the administration of the infusion of cinchona bark.

With respect to the mercurial part of the treatment, on which I place the greatest reliance, and to which I attribute the beneficial effects that have resulted in this case, various opinions may be given. In my own opinion, the benefit is to be ascribed to its general influence on the capillaries; and the equalizing of the circulation that is thus produced. Something is also due to its influence on the glandular system, operating as an extensive counter-irritant, and, therefore, relieving the congestion in the brain. In this case it operates nearly in the same manner as in typhus; and you have before you the demonstration of its value as far as that can be derived from a solitary instance.

Upon the whole, this case, which has terminated very favourably, although of rare occurrence, yet is one fraught with instruction, and well calculated to repay the closest attention you can bestow upon it.

CLINICAL LECTURES.

Delivered at the Jervis Street Hospital, Dublin.

By DR. CORRIGAN.

Permanent Patency of the Aorta.

James Rossiter, ætat. 32, labourer, complains of violent palpitation of the heart, increased on exertion; of great dyspnœa, with occasional violent fits of coughing. Pulse 117, full and bounding. His expectoration is scanty; bowels regular; skin and urine natural; tongue clean.

Physical Signs.—The whole chest, with the exception of the præcordial region, sounds clear on percussion, and respiratory murmur is natural. The impulse of the heart is felt over a very wide space, but not increased in strength. At the junction of the first and second bone of the sternum there is loud and distinctly double *bruit de soufflet*, or what may be called, from the sensation it gives, an ascending and descending *bruit de soufflet*. As he stands or sits erect, the pulsation of the carotids and subclavians is very remarkable, these vessels being thrown out into strong relief at each diastole; and this bounding pulsation is strongly marked even in the small arteries about the inner angle of the eyes. In the carotids and subclavians there is very loud *bruit de soufflet* accompanying their diastole, and also fremissement; the fremissement, however, not so strongly marked as the *bruit de soufflet*, except in the right subclavian, where it is very distinct. The pulse, as before observed, is remarkably full and bounding. Corresponding with the extreme left of the space over which the impulse is felt, there is sharp and loud musical *bruit de soufflet*, and behind, over a space extending from about the third to the seventh dorsal vertebra, *bruit de soufflet* is also audible.

He is labouring under great debility. His face is expressive of sinking, and the heart is so enfeebled that when he stands erect for a few minutes, and the arm is held raised up, the pulse becomes intermittent and unable to bear the slightest pressure. There is no œdema nor evidence of venous congestion any where. Rossiter can give but a confused account of the commencement of his illness. He thinks it might have originated in a fright; the first symptom of distress about the heart was palpitation, which obliged him to go into hospital about twelve months since. This man presents all the signs of permanent patency of the mouth of the aorta, that disease in which the semilunar valves permit the blood to flow back into the ventricle. The distinguishing signs of this peculiar disease of the heart are, 1st, a full pulse; 2d, that singular and bounding pulsation of the great arterial trunk of the neck; 3rd, the *bruit de soufflet* in those trunks and in the arch of the aorta. These are all physical signs intimately depending on the insufficiency of the aortic valves, and when present together, are the essential diagnostic marks of this disease. In no other disease of the heart is there the remarkably full pulse that accompanies this. In narrowing of the aortic opening, from vegetation on the valves, there is *bruit de soufflet* in the aorta, but the pulse is small and contracted; and the pulse is also proportionally small and contracted in narrowing of the auriculo-ventricular opening. The remarkable fulness of the pulse in this instance arises not alone from there being no narrowing of any of the orifices, but is probably also owing to the long-continued action on the arterial tubes of a greatly hypertrophied heart; for when the aortic valves are inefficient, the left ventricle invariably becomes greatly dilated and hypertrophied. There is also in this disease, when of very long standing (and owing probably to the same cause, viz. the increased strength of the left ventricle, which acts to lengthen as well dilate the arteries), a remarkably tortuous state of the arteries about the head and face, and of the brachial artery and its branches, so that at each contraction of the ventricle, these arteries suddenly rise and writhe like earth-worms under the skin. The remarkable pulsation which is so evident in the arterial trunk of the neck is produced thus:—Immediately after each contraction of the left ventricle, the semilunar valves not being capable of catching and retaining the blood, a portion of it returns down the aorta into the ventricle, leaving the carotids and subclavians partially flaccid. The hypertrophied ventricle in its next contraction suddenly sends a distending wave of blood along these vessels, and their diastole is then so much the greater on account of their previous comparative flaccidity, that it gives the appearance of this sudden bounding out, or visible pulsation. That this explanation of the bounding pulsation is correct, I have shewn you by a simple observation. While the patient stands erect, and allows the arms to hang down by his side, the pulsation such as is observed in the carotids is not marked strongly in the radial artery, but if the arm be held erect so that the radial and brachial arteries can throw back a portion of their blood, they then, like the carotids and subclavians, become partially flaccid, and at each contraction of the heart they are also suddenly distended, and present a similar bounding pulsation even in the small branches of the hand. You must not, however, expect to have this difference of pulsation according to posture so well marked in every case as in the present. The third sign, the *bruit de soufflet* in the ascending aorta, the carotid, and subclavians, is also very distinct in this case, and is owing to the rush with which the blood is sent along the ascending aorta and the large trunks arising from it. Imme-

diately after the ventricle has ceased acting the blood rushes back again into the ventricle; and this backward current with its vibratory motion upon the sides of the aorta, gives the second or descending *bruit de soufflet*. The fremissement is much more evident in the right subclavian than in the other large trunks about the neck.

When the patient stands erect, there is no *bruit de soufflet* in the femoral artery, there is only the simple pulsation of it; but when we place him perfectly in the horizontal posture, then there is immediately loud *bruit de soufflet*, and well marked fremissemes in the trunks of the femoral arteries. The explanation of this singular change is, that in the erect posture the column of blood in the abdominal aorta keeps up such a pressure on the contained blood of the femoral artery, that this vessel is kept fully distended, and it gives simple pulsation without sound; but when the posture is changed, and the patient lies horizontally, the femoral arteries are then at liberty to throw back their blood upon the aorta and into the ventricle, and to become flaccid, as the carotids and subclavians did in the erect posture; and thus the motion of the blood becomes similar, and causes a similar sound. The moment the patient again stands erect, the sound and thrill cease. I know of but one disease that may be confounded with the disease we are now noticing, and that is aneurism, which, involving the mouth of the aorta, might render the valves, otherwise unaffected, incapable of closing across its mouth. I have such a preparation. It will, however, very rarely happen that in aneurism of this part of the aorta, the ascending portion can exist for any time without indicating its existence by pulsating against the anterior parietes of the chest, so that the doubt in diagnosis will be at best but of temporary duration.

I have spoken with considerable confidence of the diagnosis of this singular disease by means of the signs which I have described, because their accuracy does not now rest merely on my assertion. In 1832, I published in the Edinburgh Medical and Surgical Journal, a description of this disease, with its peculiar signs, until then, I believe, misunderstood or confounded with other diseases of the heart; I had then observed eleven cases of the disease, and from these my history was drawn up. The certainty of the signs was doubted by Dr. Graves, in a clinical lecture of his, published in this Journal, February 16th, 1833; and the question between us was made the subject of a Thesis, published in Paris in 1834, by Guyot de la Guerche.

"Un Professeur distingué le Docteur Graves de Dublin, pretend-it avoir retrouvé tous les symptomes indiqués par le docteur Corrigan chez un malade qui, a l'autopsie n'offrit point la lesion decrite par ce medecin.—M. Guyot par sa thesé, a decidé la question tout a fait en faveur du Docteur Corrigan;—et repond a merveille aux objections du Professeur Graves".*

I have now seen many more cases of the disease since the publication of that paper, and I have almost nothing to add to, or correct in it. The confirmation of my description given in the thesis published by Guyot, is my reason for now speaking with confidence. The season of the year and the debility of the patient may make the present case terminate fatally, before the termination of the session. If so (the diagnosis is now before you), there may be an opportunity of either confirming or disproving it; and whatever may be the result, you shall have the benefit of it. If confirmed, it will induce you to rely with certainty on the diagnostic signs I have pointed out: if disproved, I will not have the slightest hesitation in acknowledging my error. In the treatment then recommended, Guyot also fully concurs with me. The heart, from the double duty thrown upon it by the inefficiency of the aortic valves, becomes hypertrophied, in accordance with that general law of the animal economy, that muscles become hypertrophied in proportion to the increased labour thrown upon them. The hypertrophy of the heart, in this instance, is a wise provision of Nature, not a disease; and we must not attempt to lessen the strength of the heart in this case. If we do, it may become incapable of carrying on the circulation. As it is, even the heart in this case seems much exhausted in its muscular strength. In the horizontal posture, the pulse is regular and strong; but when the patient is kept standing erect for a few minutes, the pulse becomes very weak, and the action of the heart intermittent, and at last so weak that the blood is not sent even into the carotids and subclavians with sufficient strength to produce *bruit de soufflet*, although for the first few moments of standing erect, the sound is very loud. There has been little done in the way of treatment since his admission. He has had an opiate at night, and his diet has been a full meat diet, with occasionally wine. A seton has been inserted over the left mamma. Weak as he is now, he was weaker still when he came in. He says he has felt much stronger and better, and that he sleeps better since he has been put on strychnine pills. He takes one of those containing one-sixth of a grain of strychnine three or four times a day. My reason for giving strychnine in this case is, that in almost all cases where I have given it for affections of the nerves, one of its most frequent effects has been to excite the heart's action and make the pulse stronger than before. The valvular disease in this case is not, however, confined to the

* Archives Generales, June, 1834.

aortic valves. There is *bruit de soufflet*, I have already mentioned, not alone over the sternum, but very loud and musical directly over the point where the apex of the heart beats. This indicates disease of the auriculo-ventricular valves, which are, it is probable, the seat of ossific deposition; but there can be no narrowing, at least to any considerable amount, for the pulse is too full for this. There is also *bruit de soufflet* in the back; this may arise either from the conveyance of the sound from the aorta, through the spine, or may be produced by regurgitation into the left auricle. There is certain indication, at all events, of other valvular disease, in addition to that in the aorta. I may take this opportunity of observing, that in cases of narrowing of the auriculo-ventricular opening, it is of great importance to be able to ascertain whether the narrowing is considerable or only trifling. The prognosis and treatment are much influenced by this. The intensity or tone of the *bruit de soufflet* will give us no information on this, for it will be as sharp or as soft, as loud or as low, in a case in which there is merely thickening of the free edge of the valves, as in cases in which the opening is narrowed to one-third of its size. The information we seek is obtained from examining the pulse in conjunction with the *bruit de soufflet*. If the pulse be moderately full and regular, no matter how the *bruit* sounds in tone or loudness, the narrowing is not considerable. If, on the other hand, without fever or excitement to account for it, the pulse be quick and small, the narrowing has already attained an alarming degree. In the former case, many years may pass over and the patient feel no further inconvenience than some palpitation on increased exertion; in the latter the progress will be very different, and our prognosis must correspond with it.

EXPERIMENTS MADE WITH DR. RICORD AT THE HOPITAL LES VENERIANS.

Pustulous Origin of Chancre—Progress of Chancre, healed only with Local Emollients—Inoculation of Chancrous Matter, with its Progress. By Alex. Thomson, M. B., of St. John's College, Cambridge.

(*Continued from p.* 48).

June 1st. The left inguinal bubo is increased in size, being one inch in ileo-pubic by three quarters of an inch in vertical diameter, moveable, without redness of the skin, harder, but painful only on considerable pressure. The right crust is in the same state. The new crust of the left inoculatory ulcer has again fallen with the cataplasm, and with it the upper half of the large marginal granulations, and those of the middle, while the lower half of the former adhere only by the margins, and will probably fall. The ulcer in other respects is unchanged in size, and in the elevation and hardness of its edges, which, however, are paler. These edges are vertical to the bottom of the ulcer, which is one line and a half in depth, yellowish grey, and covered by a brownish grey pus. The base of the ulcer is extremely hard. The crust of the elevated portion of skin, contiguous to the ulcer, has in great part also fallen, and been replaced by a new epiderm, forming a faint bluish red eschar, sunk to the level of the skin. The prepuce is much more swollen, but not so much as to be incapable of being retracted, and redder, particularly towards the extremity at its anterior surface. The whole mucous membrane of the prepuce swollen, polished, and bluish red. The gland also towards its base very red, and somewhat swollen. The inter-ulceral bands have both increased to a line and one-third in breadth. He has been much troubled with erections in the night. Continue even the poultice. Give him a twelve-ounce water lavement, with ℥ ij of sulphate of magnesia, and no bouillon aux herbes.

June 2nd. The right inoculation crust *in statu quo*, but permitting to ooze out beneath its inner edge a fetid, chocolate-coloured pus. Both it and the left inoculation ulcer are now again free from areola. That ulcer paler in its edges, which have now only two-thirds of a line in height, softer in its base; the subcutaneous induration extending now no further than the line, from which the edges commence to rise; similar in other respects, save that it discharges in a small quantity a sanious serum, rendered turbid by a little diffused pus, and having the granulations still inadherent, except to its margins, and dry, and covered with a thin reddish-brown transparent crust. The cicatrix of the adjacent inflamed portion of skin returned to its natural hue. The prepuce still more swollen, so that he has now difficulty and pain in retracting it; much redder externally, and extremely hot; the swelling being chiefly in the left side, and opposite to the position of the coronal ulcers. The penis itself is hot to the touch, and feels so to himself, though it is not otherwise painful, and has a band vividly red, hotter than the other parts, two lines in breadth, proceeding from the most tumid portion of the left side of the prepuce, obliquely upwards and backwards towards the centre of the dorsal portion of the root of the penis, whence this band ascends obliquely upwards and outwards, across the mons veneris, as far as the middle of the upper edge of the left ileo-pubic bubo. The skin is a little tumid in the whole course of this band, and particularly so at the root of the penis, where it forms a soft round tumour of one

and a half lines in height, and three lines in diameter; a rolling, hard cord, painful on pressure, may be felt under this red band, as far up as the bubo, into which it loses itself by expanding. The penis itself is about four-fifths of an inch in transverse diameter, opposite the prepuce, however, one and one-third inches. The only uneasiness which he feels from this new change, is an itching sensation all along the course of the red band. The left ileo-pubic gland, however, is also increased in size, being now one and a half inches in ileo-pubic, by three quarters in vertical diameter, moveable, rather softer than harder, not painful, but tender on pressure, and not having the superjacent skin red. The internal membrane of the prepuce is much polished, distended, swollen, bluish red on the left half. The left side of the gland also, for two lines from the base, and two-thirds of a line in height, swollen and remarkably red, as indeed is the whole of the gland. The anterior, however, and posterior of the left præputial trio of ulcers, are now one half cicatrized by the expansion of the interjacent cicatrizing band. The frenal ulcer is now filled up to a level with the summit of its edges, yet still retains the greyish yellow of its open part. The coronal ulcers, moreover, are now one-half filled up, much paler in their edges, and even less indurated at their bases; yet exceedingly tender, the anterior having a diameter of three, the posterior of two lines. Notwithstanding the increase of irritation, he has had no shivering, nor heat, nor lassitude, nor uneasiness, and has the skin cool, the pulse 72, moderately full, soft, regular, and compressible; and the tongue moist, white, slightly furred in the anterior, deeply in the posterior half, where it has a yellowish tinge. Continue even the bouillon aux herbes, without the lavement; bathe the penis more frequently in the linseed tea. Dress the left inoculation ulcer with a piece of linen covered with cerate, beneath the poultice. He had no erections last night. Half an hour after he received the lavement, he returned it with a large quantity of hard, feculent matter, in little round balls.

3rd. The right inoculation crust in the same state, save that the matter, oozing from under it, is free from odour, and consists of yellow, healthy-looking pus. The left inoculation ulcer, also, in the same state, save that the margins and adjacent skin are less blue, the edges softer, the granulations flattened, somewhat indurated, and of a bluish white hue, but unchanged in relation; the bottom not so deeply sunk, beginning in the centre to be irregular, and to shew some small, red granulations in the intervals of its greyish yellow bottom, which is speckled over with scattered, blood-red spots. Penis absolutely in the same state externally, save that the redness is not so vivid, and the heat is considerably diminished; the red band, passing from the root of the penis to the ileo-pubic gland, is changed into a considerable soft tumour of the integuments, following the same direction. Beneath this swelling of the integuments the absorbent vessel is extremely large, having about one and a half lines in diameter, and is fully as hard as ever in its whole course, from the prepuce to the bubo. He has lost all itching in these abnormal spots, save in the small tumour at the dorsal part of the root of the penis. The prepuce and gland are interiorly in the same state, save that the redness of both, and the swelling and induration of the lining membrane of the former, are much diminished. He suffers considerably in drawing back the prepuce; has had several painful erections last night: has had no stool, but has slept tolerably well. The buboes are unchanged in condition, even the ileo-pubic. The pulse is 72, soft, compressible, moderately full and regular. Continue the dressing, and make use of a syringe to wash out the space between the prepuce and gland.

June 4th. There is no change whatever in the form of the penis or in the condition of the buboes, although the red portions of the former are much fainter, and the organ itself is far less hot, and free from pain, and even less tender. The posterior of the right præputial trio of ulcers, owing to contraction and cicatrization, has now no more than one and a half lines in diameter. The absorbent vessel is still equally hard, and painful on pressure, though not so much so as it was. He has had many erections, without great pain, during the night: has had no stool: has the tongue slightly furred, and white in the anterior two-thirds; deeply so, and yellowish white in the posterior third; and the pulse 54, soft, regular, moderately full, and compressible. Continue: but add one cup of bouillon aux herbes, and a lavement of ℥ xij of water, and ℥ ijss of honey of the mercurialis annuus.

June 5th. The left inoculation ulcer in the same state, save that he does not suffer so much from it, even on pressure, that the central depression is gradually filling up, that the old granulations are now adherent to the base, and absolutely covered in their upper surface with a cicatrizing membrane continuous with the margin of the ulcer; that the induration of the base is much diminished; that the induration and colour of its edges are much diminished; and that their height is now only two-thirds of a line. The depressed part of this ulcer is still of a greyish yellow hue. The right crust has now become loose, and only adheres by the inferior edge. Take care not to rub it off. No redness, or subcutaneous induration can be found around the crust. The buboes, ulcers, and penis, in the same state, except that from contraction and cica-

trization, the inferior of the left præputial trio of ulcers has now no more than one line in diameter, and the posterior of the same trio from the expansion of the interjacent cicatrizing membrane, which is now one and a half lines in breadth, is one-half cicatrized. The absorbent is unchanged in feel, and still painful on pressure, through the whole extent. He has no other uneasiness, save frequent erections during the night; has not been to stool, but returned his lavement three-quarters of an hour after 2 P. M., when he received it, with nothing but a small, hard ball of matter, about the size of a walnut. The pulse and tongue are unchanged. Continue; but change the lavement for ℥ ij of sulphate of magnesia, with ℥ ij of water. Give him but one cup of bouillon aux herbes.

June 6th. The state of the penis is entirely the same, save that the cicatrization already commenced has generally marched slightly. The coronal ulcers are now filled up to a level with their edges, which are softer, and less blue. The ulcers, however, retaining the colour of their surfaces: that part of one of the coronal ulcers which is upon the coronal edge of the gland, has its edges now sunk to a level with the surrounding parts. The right inoculatory crust is again adherent: the inoculatory ulcer of the left side is *in statu quo*, save that the cicatrization of the first granulation is firmer, and the hollow in the centre of the ulcer is not so deep, while the bottom readily bleeds when touched. The buboes are in the same state; the pulse is 72, soft, regular, moderately full, and compressible. The sulphate of magnesia lavement was returned one hour and a half after its administration, unaccompanied by any fecal matter, yet he has no pain whatever, even on pressure in the belly. Continue, without lavement; but take immediately two ounces of castor oil, in a cup of bouillon aux herbes.

June 7th. He has had no stool, not having taken his opening medicine till this morning, yet the tongue is clean and normal in appearance, and the pulse unchanged. The ulcers of the penis are nearly in the same state, the cicatrization having very slightly progressed. The left inoculatory ulcer has its bottom, where free from the large granulations, still flat, but not more than one-half a line below the edge of the ulcer, and of a much redder hue. Take another cup of bouillon aux herbes. Continue the rest, but dress the inoculatory ulcer with some simple cerate spread on charpie; administer towards evening a lavement containing 10 grs. of camphor, 1 gr. of gummy extract of opium, 1 yolk of egg, and ℥ viss of water.

June 8th. The penis, buboes, pulse, and tongue unchanged. He has had three copious stools, and a few erections of the penis during the night. The left inoculatory ulcer is unchanged save that its bottom is still more elevated towards the free margin of the edges. The right inoculatory crust has fallen of itself. He says that the ulcer, immediately after the fall of the crust, was filled, with the exception of a very small central depression, with large, fleshy, red granulations, rising above the level of the edges of the wound. At present, in place of an ulcer, there is an elevation of a round form, three-quarters of an inch in diameter, one line in height, invested with a translucent reddish brown crust, covered with hemispherical bases corresponding to the granulations, in some parts redder than in others; the edges of this tumour being hard, bluish, and about one and one-third lines in breadth. The whole is surrounded with a bluish red areola of one-half of an inch in breadth, covered with small adherent fragments of the fallen crust, and which in the internal one-third is elevated about one-third of a line above the surface, soft, and redder than in the rest of its extent, but not excoriated. There is at the lower exterior edge in the middle of the breadth of the areola a distinct pimple not at all connected with the remains of the first ulcer, four lines in diameter, one and one-half line in height, surrounded with a special areola swelling, and reddening concentrically, of three-quarters of an inch in diameter, with hard edges, and resting on a base which is hard, and the hardness of which extends as far as the edge of the areola, surmounted with a round hard crust, irregular in its surface, harder, and slightly more elevated in the middle than at the edges, yet nearly flat, of a reddish brown hue, and yielding when pressed upon, a pale yellow pus, the centre of this pimple-crust being three lines distant from the edge of the original ulcer. Continue the treatment without the purgative and the bouillon aux herbes, but do nothing to the sore of the right thigh.

9th. The right inoculatory tumor in the same state; save that the crust of the original ulcer is much harder and more opaque, also of a dark brown hue, and that the indurated base of this tumour has become much softer; the inner red and swollen portion of its areola is covered with a thin dingy brownish yellow crust, and is, as well as the areola and edges of the tumour, of a paler and bluer hue. The pimple of the superareolar pustule is now five lines in diameter, and two-thirds of a line in height; has its pustule covered in its central fourth by a crust formed of its own crust, thickened by matter that has oozed from the first tumour, and in the remainder by a thin pellicle, uniting the edges of the crust to those of the pimple, one-half a line in height, and contains yellowish white and opaque matter, and has its base increased in hardness, notwithstanding that that of the original ulcer

has become softer. The inoculatory ulcer of the left thigh is now not above one-half a line above the level of the skin, has the bottom of its open part still nearly even, not more than one-third of a line below the level of the edges of the ulcer, covered with small pale red granulations, and retaining scarcely any of the yellowish grey hue; the subcutaneous induration of its base still further diminishes. The buboes, dorsal absorbent of the penis, and penis itself, generally *in statu quo*. The left trio of præputial ulcers have now a strong interjacent cicatrizing band one and a half line in breadth, so that by its expansion they are all now one half cicatrized. He has had no stool, but much erection during the night; the pulse 66, soft, regular, compressible, and moderately full, and the tongue natural. He has not received the bouillon aux herbes. Continue the treatment. Make a single inoculation on the left thigh, three inches beneath the old ulcer, with matter taken from the areolar pustule.

10th. The penis and buboes absolutely in the same state, generally, the cicatrization already commenced having very slightly progressed. The left inoculatory ulcer is in the same state, save that it is now actually filled up to a level with the edges, still, however, retaining a greyish yellow hue over the recent granulations, that fill up the centre. The right inoculatory crust is harder, thicker, and now of a blackish brown hue. The crust of the inner third of the areola has chiefly fallen from the red and elevated portion of the skin, which is now reduced to a level with the skin, and is, with the remainder of the areola, of a pale bluish red hue, and in a state of exfoliation of the epiderm in variously sized scales. The base of the areola is still softer, the edges of the ulcer in the same state, and undiminished in height. The new pustule has absolutely the same appearance, but in the pustular part has three lines and a half in diameter, and two-thirds of a line in height, in the pimple-portion half an inch in diameter, by two-thirds of a line in height, having its sides of a deep bluish red hue, and its areolar redness diminished. The new inoculation is surrounded with an areola gradually reddening, and swelling towards the centre, or puncture, four lines in diameter, without any central pimple, but with a small flat, elliptical pustule, surrounding the puncture, having one-half a line in length, by one-third in breadth and diameter, and the long diameter parallel to the axis of the thigh, and coinciding with the direction of the puncture, and containing opaque yellowish white matter. There are on the right coronal part of the prepuce, at about one line from the gland, three hard, prominent eminences, successively smaller from before backwards, about two lines, the one behind the other, and the last about half an inch from the frenum, existing, according to his account, for the last two or three days, although I have not perceived them round in the two posterior, and crowned in them, with greyish white-bottomed, hard-based, ulcers, the last half a line, the middle one-half line in diameter, the edges of each of about one-third of a line in height, exceedingly hard, and red. The anterior of the three prominences elliptical, two and a half lines in length, by one and a half lines in transverse diameter, half a line in height, hard, indurated, and apparently having only lost the epithelium, as though through excoriation, being redder and moister, in this denuded portion. The tongue is slightly furred and white in the anterior two thirds, deeply furred, and yellowish white in the posterior third. Continue the treatment, as in other respects nothing has changed; but as he has had no stool, give him immediately ℥ ij of castor oil, in a bowl of bouillon aux herbes.

11th. Being obliged to absent myself from Paris, I entrusted the case to M. Mascime Vernois, from whom I learn that on the 11th the last inoculation attempted has given no result. There is no longer any areola round the first inoculatory sore of the same side. The bases of all became less and less hard. Pulse 54, in other respects unchanged.

14th. The crusts covering the ulcerated pustules of the right thigh, are almost confounded; the oldest is imbricated over the last; on the left the inoculatory sore presents the aspect of an ulcus elevatum.

NUISANCES, LEGALLY AND MEDICALLY CONSIDERED.

(*Continued from p.* 85.)

The next part of public hygiene—arts, trades, and manufactures—is the consideration of the laws regarding nuisances, which are so beneficial to the preservation of public health. I shall notice the chief enactments under this head, and omit the minor ones, as the medical practitioner is rarely consulted with respect to them.

A nuisance is legally defined, "anything that worketh hurt, inconvenience, or damage to the person or property of another." Nuisances are of two kinds—public or common nuisances, which affect the public, and are an annoyance to all the king's subjects; and *private* nuisances, which injure individuals. Thus, if a man sets up some offensive manufacture or trade, as a tanner's, tallowchandler's, or a soap boiler's, &c., which annoys his neighbour, or injures his health, he has a remedy by action. Common nuisances are abated by indictment.

All trades and manufactures which are noxious, highly disagreeable, or dangerous to health, except when carried on for many years in accustomed places, are nuisances. The

smoke of a brewery is at least destructive to comfort, and may be injurious to health. A smelting house is a much greater nuisance, as it gives out large volumes of smoke, together with the poisonous fumes of sulphur, lead, antimony, and arsenic, which so deteriorate the atmosphere, as to destroy vegetation, and to poison cattle that feed on the adjacent herbage. The fumes which arise from manufactories of sulphuric, nitric, muriatic, and other acids, when carelessly prepared in large quantities, are next in order of noxiousness to metallic fumes, and are a nuisance. (Rex. v. White and Ward, Burr. 333.)

The division of a house into lodgings, and filling it with poor people, which renders it more dangerous in the time of sickness (query during the prevalence of epidemics) and plague, is a nuisance, and indictable. (2 Roll. Abr. 199 ; Paris and Fonblanque). Dirt, filth, &c. in a street, is also a nuisance.

It is enacted by 57 George III. c. 29, that if any person shall throw, or suffer to be thrown or remain, any ashes, dust, dirt, rubbish, offal, dung, soil, blood, or other filth, or shall kill, slaughter, scald, dress, or cut up any beast, &c., in or near any street, (within the act) as that any blood or filth shall run or flow over the pavements, such person, on conviction before any justice of the peace, shall forfeit and pay not less than forty shillings, or more than five pounds for each offence.

This law is not sufficiently enforced in our meat and vegetable markets. The quantity of offal, blood, and putrescent vegetables, in some of them, is disgraceful to the local authorities, and most dangerous to passengers. The worst, and most fatal fevers, have arisen from such causes.

Noises, whether by day (Tennant v. Jones, K. B., 1821,) or by night, (Rex. v. Smith, 2 Str., 704), are nuisances, as these not only render life uncomfortable, but are prejudicial to the health of invalids. The court of Chancery enforced an agreement not to toll a church bell. (Paris and Fonbl.) I have known a lady, who was killed in the city by the tolling of such a bell, which was close to her apartment. All remonstrance with the pious ringer was useless.

There are many other transitory nuisances, such as the removal of the contents of privies, called night soil, "garbage, soap boilers' lees, and other stinking refuse of animal or vegetable matter."

It is extremely difficult, in consequence of peculiarity of constitution and habit, to determine the injurious effects of many of the preceding nuisances on certain individuals, or on the public at large .The remarks of Dr. Paris on this point are so apposite, that I shall cite them.

" As to the physical effect of each particular species of bad smell, there may always be some doubt, and much contrariety of evidence is to be expected; this however is certain, that those stenches which may be innocuous to persons in full health, are by no means so to invalids or persons of irritable nerves or stomachs ; and to pregnant women they are generally allowed to be dangerous.

" Habit has also a powerful operation in diminishing the deleterious effects of such effluvia; instances daily occur in which the fumes of certain manufactories affect strangers in the most violent degree, while the artisans engaged in the occupations which produce them, or the persons accustomed from their residence to the full force of their influence, scarcely experience any inconvenience ; nay, in some cases, they would even seem to derive a degree of benefit from such an atmosphere, and to suffer whenever they quitted it ; like the criminal recorded by Sanctorious, who fell sick when taken out of an infected dungeon, and did not recover until he had been returned into the impure air to which he had been so long habituated. We introduce these remarks for the purpose of showing, that persons immediately engaged in an indictable manufactory, are not only morally, but physically, incompetent to give evidence in proof of the extent of the mischief it may create: in addition to which it must not be forgotten, that in those works in which are carried on the fusion and volatilization of metals, the workmen employed in the interior of the building escape the deleterious fumes which pass up the flues and spread desolation over the surrounding district. These views will moreover enable us on many occasions to reconcile the conflicting testimony which is so often given on trials of nuisance, without in the least impeaching the veracity or sincerity of the individual witnesses engaged in the contest."

Every modern physiologist will consent to these conclusions.

The following arrangement of nuisances will be found in the conjoint work of Dr. Paris and Mr. Fonblanque, and is one of the best hitherto prepared in this country.

" There are in law many kinds of nuisance ; but we shall confine ourselves to the consideration of those only which can be made the subject of medical or chemical investigation; these are such as are directly or indirectly detrimental to health, whether general or individual ; or are destructive to comfort; or injurious to property: obstructions to the free course of air, light, and water, volumes of smoke, and noisome smells fall under the two first descriptions, while the fumes of some manufactories combine every species of annoyance.

"The question, how far the salubrity of the atmosphere may be affected by the effluvia of particular manufactories, is one that the medical practitioner is often called upon to decide ; and upon such an occasion let him beware that his judgment be not swayed by

the fastidiousness of the surrounding inhabitants, nor warped by the clamours of invidious rivals or interested opponents; as a man of science and integrity he is called upon to decide between two parties equally valuable to the state—between the health and comfort of the citizen, and the prosperity of the manufacturer.

"The manufactories and occupations which have been considered exceptionable, for reasons to be hereafter enumerated, may be arranged under four divisions, viz.

"1. Those during whose operation gaseous effluvia, the products of putrefaction or fermentation, escape into the atmosphere, and are either noxious from their effects upon animals, or insufferable from the noisomeness of their smell: such as the steeping of flax and hemp; the manufacture of catgut; slaughter-houses; starch manufactories; tanneries; the feeding of swine; and the several occupations of horse slaughterers, skinners, fellmongers, curriers, &c. &c.

"2. Those where, by the action of fire, various principles are evolved, and diffused in the form of vapour, or gas; the inhalation of which is not only disagreeable to the senses, but injurious to the health; as the process of brewing; the formation of various acids; the incineration of animal substances, as practised by the manufacturers of hartshorn; Prussian blue makers; roasters of horn for lanterns; glue makers; varnish makers; soap boilers, and renderers of tallow; smelting houses; gas works; brick kilns; turpentine distillers, and rosin makers, &c. &c.

"3. Those which are capable of yielding waste liquids, that poison the neighbouring springs and streams, as gas works, starch manufactories, dyeing houses, &c. &c.

"4. Those trades, whose pursuit is necessarily accompanied with great noises, as those of copper smiths; anchor-makers; gold-beaters; tin-men; trunk-makers; proof-houses (where cannons are proved); the tilting of steel; forging bar iron; flatting mills, &c. &c."

Division 1. *Gaseous effluvia, caused by putrefaction or fermentation, which taint the atmosphere, and are noxious to animals, or insufferable from the noisomeness of their smell.*

I. *Effluvia from the steeping of flax or hemp.*—Almost all vegetable and animal substances, when deprived of vitality and exposed to moisture, air, and a certain degree of temperature, sooner or later undergo the putrefactive fermentation, and evolve carburetted and sulphuretted hydrogen, carbonic aicd, and nitrogen, each of which is injurious to health, and often destructive to life. The first and second act on the human body as sedative poisons, while the third and fourth induce asphyxia. The preparation of hemp and flax presents an illustration. These substances are placed in stagnant pools for the purpose of separating the vegetable fibre from the stems; and when this is effected by the putrefactive process, an effluvium arises, which is highly offensive and prejudicial to health; while the water is so poisoned as to destroy fish contained in it, and to prove noxious to cattle that drink it. The odour of it resembles that of bilge water in the hold of a ship. The gaseous emanations from it have frequently caused different types of malignant fevers, as typhus, remittent, and intermittent. It is therefore evident, that the preparation of flax and hemp for commerce, ought to be carried on at some distance from towns and cities. This regulation is enforced in some parts of Italy. In proof that the effluvia arising from these substances may cause fevers of the worst type and other diseases, I shall give two or three examples.

The celebrated Zimmerman attested, that the effluvia from this source caused a malignant fever in a family in which it had commenced, and subsequently spread through the adjacent country. Lancisi observed, that a fever was caused at Constantinople, in consequence of the transmission of hemp from Cairo in a wet and unfinished state, which was placed in the public granaries, so that it might complete fermentation during the summer. Lastly, an epidemic dysentery has been annually observed at Helmsted every autumn, which prevailed for several weeks, while the flax is immersed in the Aller. I have, more than once, encountered the effluvium arising from flax during the process of putrefaction; and found it most disagreeable. Though in good health, I experienced nausea, vertigo, and great prostration of the vital powers; and I feel convinced, that had I remained near it after the invasion of these symptoms, I should have fainted; and, perhaps, might have been seized with a malignant fever. But M. Parent Duchatelet arrives at a different conclusion. He states, that agriculturists have long observed, that beasts frequent those places in which hemp is steeped, and drink the water that surrounds it. He is of opinion, that the pretended accidents, and the pretended epizootes were probably the work of the imagination, and not the result of observation.—(*Annales d'Hygiène Publique et de Medecine Legale.* March, 1832.)

Starch-making—The manufacture of starch is considered a nuisance, on account of the diffusion of a fetid acetous vapour, which arises during the fermenting of wheat or other vegetable matter. Tourtelle recommends the evolution of ammoniacal vapour for the neutralization of the acetous.—(*Elemens d'Hygiène.*) Dr. Paris comments on this point as follows:—

"The manufacture of starch can scarcely be considered in itself a nuisance, for although it be necessary to produce the acetous fermentation, in order to remove

from the fecula any colouring matter, yet if sufficient attention be paid to the operation, and the water be properly let off from the settling vessels, no inconvenience can arise. A nuisance, however, of considerable magnitude may incidentally attend these manufactories, from the number of swine which are constantly kept by the starch-maker, and the profit of which forms a part of his speculation, and which is so considerable, that he can generally afford to sell the starch at prime cost, relying wholly upon the former trade for his profits."

The starch-makers are occasionally exposed to great heat, from one hundred and ten to one hundred and fifty, and sometimes to two hundred degrees. They are, however, employed more frequently in wet rooms, which are open to currents of cold air. They are subject to inflammation of the air passages, as catarrh, pulmonic inflammation, and also to rheumatism. Few can bear the employment after the age of forty years, and seldom survive more than two or three years afterwards.—(*Thackrah, op. cit.*)

II. *Effluvia arising from animal substances.*—The effluvia arising in manufactories of catgut, varnish, glue, size, of purifying fish oil, those produced in slaughter-houses, in horse slaughter-houses, tanneries, swine yards, dog kennels, &c., are most properly considered injurious to health, and therefore, nuisances. Mr. Thackrah's remarks on some of these are highly instructive, as they were derived from personal observation.

Slaughter-houses.—The atmosphere of the slaughter-houses, though sufficiently disgusting to the nose, does not appear to be at all injurious to health. The mere odours of animal substances, whether fresh or putrid, are not apparently hurtful; indeed, they seem to be often decidedly useful. Consumption is remarkably rare among the men employed in the slaughter-house. If we see a phthisical youth in the fraternity, we shall generally find that his parents, aware of an hereditary predisposition to consumption, brought him up to the business with the hope of averting this formidable malady. The atmosphere of the slaughter-house, imbued with a foreign admixture, is moreover less susceptible of those natural changes which produce epidemics. From this circumstance, conjoined with their diet and habits of life, butchers are less subject than other trades to cholera and dysentery. To the same favourable combination, we attribute their comparative exemption from diseases, considered as infectious or contagious. Of five hundred and twenty patients taken to the House of Recovery in Leeds, during a year, only one was a butcher, and his was a case not of typhus, but of simple fever.

Notwithstanding the favourable circumstances in which butchers are placed, longevity is not greater in them, than in the generality of employments. I suspect it is even shorter than among most other men, who spend as much time in the open air. Butchers in fact live too highly; not too highly for temporary health, but too highly for long life.—(*Op. cit.*)

The manufacture of glue and size.—This creates ammoniacal exhalations from the decomposition of animal refuse. The stench is disagreeable and prejudicial to the adjoining neighbourhood. Nevertheless, we are informed, that "all the glue and size-boilers we saw, were remarkably fresh-looking and robust."—(*Thackrah*).

The noisome processes in converting the flesh of *dead horses* to different uses, are thus described by Dr. Paris. "The dealers in dead horses, or *knackers*, as they are termed, begin their mercantile anatomy by taking off the shoes and disposing of them to the farrier; the skins are next stripped off, and sold to the tanner; the carcase is then cut into pieces, and boiled in large caldrons of water, in order to extract the fatty matter, which, being skimmed off from the surface of the liquor, is '*rendered down*' and packed in cases for the soap-boiler, or the manufacturer of cart-grease. Whatever remains after this operation supplies the venders of dogs' and cats' meat with a dainty article of sale; at length, the views of the greedy trader are directed to the bones of this noble animal. A number of persons find employment in chopping them into small fragments, from which the marrow is then extracted by boiling for several hours, and added to the fat already obtained from the carcase; the dry remains are employed in the production of hartshorn by distillation; and after this process is finished, they are removed from the still, and calcined to whiteness, in order to be mixed with clay for the manufacture of porcelain, or they are consumed for the formation of ivory-black." (*Op. cit.*)

Mr. Thackrah adduces the following evidence against the preceding conclusions:—"It appears by the evidence given before a committee in France, 'that all the men, women, and children, engaged in knackers' operations, knackeries, or carrion-butcheries, had unvarying good health, were remarkably well in appearance, and strong in body. The workmen attained an old age. They handled diseased as well as healthy parts, and frequently cut themselves with impunity. Persons who live close to the places, or go there daily, share these advantages with the workmen.' It is also stated, in confirmation of the above, that above two hundred exhumations are made yearly in Paris, about three or four months after death, and not a single case of injury to the workmen had been known.

"M. Labarraque has observed, that the catgut-makers, who live continually in a

putrid atmosphere, arising from macerating intestines, enjoy remarkable health. Similar circumstances were remarked at the exhumations of the Cimitière des Innocens." —*Med. and Physical Journ., new series, Vol.* 6.

It is to be regretted that the date of this quotation was not given, as the present opinion as to the danger of exhumation when putrefaction has commenced, is universally admitted, and precautions deemed indispensably necessary on the part of those who perform the process. Ample proof of this fact will be found in the preceding remarks on putrefaction.

In the Annales d'Hygiène Publique et de Médécine Légale, tom. xiv., 1836, the following question is discussed:—*Whether the sale, slaughter, and consumption, of pork fattened with horse-flesh, were likely to be prejudicial to the public health?*—MM. Adelon, Huzard fils, and Parent-Duchatelet, have decided in the negative, and their answer is in the paper before us. The circumstances which led to this investigation were briefly these:—Various localities about Paris, where knackeries and carrion-butcheries were established, had, for above ten years, constituted a nuisance intolerable, yet irremediable; when, at last, the expedient was adopted, on a great scale, of steaming the flesh of the dead animals. This prevented putrefaction, and rendered the bones perfectly pure, and free from ill odour. Some intelligent speculators then hit on the plan of giving the boiled flesh to pigs, and it proved very successful; so much so, that large herds of swine, from four to five hundred together, are now kept and fattened in the environs of Paris; and it is said, that some of them will presently be increased to the number of ten or twelve hundred. The carrion is steamed on the premises in some of these porkeries; in others, it is given to the pigs raw: but whether cooked or raw, the pigs thrive wonderfully on the diet, so as, in fact, to become from fifteen to eighteen francs a head more valuable, in the course of six weeks or two months.

The public raised the following objections to the preceding:—1. That pigs thus fed must be dangerous—perfect cannibals—eating all the children they could catch hold of. 2. That the flesh of such pigs must give rise to disorders in the human body, particularly to leprosy. And 3. That pork-butchers, in certain places, sold sausages made of the produce of carrion, and therefore ought not to be dealt with. The pork-butchers suffered accordingly; but the Council of Salubrity took the matter up, as we have just now mentioned.

In the Veterinary School at Alfort, there are generally kept from one hundred to one hundred and fifty pigs, of all sorts and sizes; and, for the last seven years, they have been fed on nothing but the *débris* of dead horses which have been dissected. This refuse matter is thrown to them in a raw state, and they eat it greedily. Now, there are no better pigs, nor better pork for eating, than are found at Alfort. The pupils eat it without scruple, and it has never had the least bad effect upon them. Nay, MM., the reporters, are highly pleased with the food—they tell us it is excellent. "*Nous avons assisté* (say they), *à un repas de cette école, et avons goûté le petit salé qu'on servait ce jour-là, et nous l'avons trouvé parfait.*" This was putting it to the pudding test, than which we all know there is none better.

As to the assertion, that this sort of food renders animals ferocious, it is not borne out by the fact. At Alfort, the children of the swineherd are constantly about the pigs, pursue them, and make them readily obey the word of command; yet, though thousands of swine fed entirely on *raw* carrion, have been reared in this establishment, not an accident has ever occurred which could be attributed to ferocity arising from that cause. It is not likely, therefore, that *boiled* flesh should infuriate them.

There is no evidence whatever of any disease (particularly leprosy) being traceable to the animal nutriment of pigs. The herd at Alfort are always healthy, as are those who feed on them.

The question of possible danger from eating of swine fed on the flesh of animals which had died of *disease*, is also negatived. Dogs and cats have been fed for some time on cancerous flesh, and they have grown fat upon it. Desgenettes and Larrey have seen the dogs and jackals at Jaffa rooting up and devouring the bodies of those dead of the plague—eating their very buboes, without appearing to suffer the least inconvenience. In the course, also, of the first French revolution, the starving wretches of the faubourg St. Germain, and the vicinity of Alfort, ate perhaps from seven to eight hundred distempered and farcied horses, which were sent by government for purposes of experiment; yet, so far from doing mischief in any instance, the supply saved the lives of many unfortunate people.

In conclusion, both on the score of administrative economy and that of hygiene, the reporters strongly recommend the encouragement of this new branch of industry. It puts an end entirely to the disgusting business of the former carrion-butchers: the flesh of dead animals is turned to a most useful purpose, and should there be a greater quantity of it than is wanted for immediate consumption, the steam process, by drying it, renders it fit for keeping, and for service in various ways.

(To be continued.)

AMERICAN CLINICAL REPORTS.

Tuberculous Meningitis, and Effusion in the Ventricles supervening in a Phthisical Patient.

T. G. æt. 30, a weaver, married, has three children, from Lancashire, entered May 21st, 1835. Has been three years in America; father and mother still living; the latter thin and delicate; lost a brother and sister of pulmonary consumption; has two brothers and a sister living, but with one exception, rather delicate.

In the summer of 1832, was taken with fever, accompanied by delirium, lasting several weeks. He recovered, but never quite regained his former strength; since that time, is subject to headach and dyspepsia, with flying pains about the epigastrium and stomach. Bowels habitually constipated. Last December had hæmoptysis, lasting several days, of bright-red blood, quantity moderate, but not recollected. Cough began after the hæmoptysis, and has continued since: is dry, short, with scanty transparent expectoration. The hæmoptysis was renewed a day or two before his entrance; the blood was bright-red, not exceeding one or two table-spoonsful in the day, and ceased after three or four days. No constant pain in the chest; emaciation rapid from the first hæmoptysis; sweats profuse at night, cold and clammy for at least two months before his entrance; constipation habitual: appetite bad; cephalalgia continued; no alteration was observed in his intelligence, except that he was more nervous and irritable than before his sickness.

At his entrance the emaciation was very great; slight œdema of legs; strength very feeble; intelligence good, but is very restless; sleeps badly; answers correct, but not precise, running into details foreign to the question, like those given by hypochondriac patients; cephalalgia constant, but much diminished when a laxative had operated; hearing good; sight natural; skin dry; sweat at night; pulse from 110 to 130; cough short, dry; expectoration of transparent mucus, with bright blood in small quantities intermixed; no pain in chest, uneasiness referred to base of sternum; appetite bad, cannot eat meat, but asks for porridge; constipation; vomiting on two or three occasions of the liquid drunk, a little tinged with bile; percussion of chest sonorous throughout its whole extent; auscultation difficult, from the nervous spasmodic respiration, caused by the application of the ear to the thorax, but respiration pure, though very feeble in the whole anterior part of the chest; no rhonchus heard; auscultation imperfect posteriorly, but without other results than the very feeble pulmonary expansion; intercostal spaces depressed on both sides; post and sub-clavicular depressions very great, much deeper on the left than the right side of the chest. Pectoral mixture, with gr. j of sulphate of morphia. Decoction of Iceland moss, a pint daily. Three cups, (scarified to each side of the chest.)

From the entrance of the patient to the 8th of June, no important change occurred in the symptoms. The strength gradually declined, but there was no increase of the cough. The cephalalgia was frequent, but ceased entirely after the administration of a mild cathartic.

On the 8th of June, vomiting of abundant greenish liquid, and strong acid taste in the mouth. Magnesia in mint water, 3j. Some of his friends saw him during the day, and remarked that his intellect was more confused than previously.

On the 9th, recurrence of the vomiting; cephalalgia not more intense than on the preceding day; answers rather slow; somnolence at intervals. Towards evening slight delirium. At 11, P. M. Delirium, continuing the night; he attempts to leave his bed; talks vaguely, at times muttering, but sometimes in a loud voice.

10th, at 7½, A. M. Decubitus listless; face flushed in irregular patches on each cheek; nostrils contracted; mouth alternately retracted to the right and left side; eyes open, the left more than the right, pupils turned upwards, dilated, but regular; no strabismus; frequent grinding of the teeth; head thrown a little backwards; right arm in motion, grasping, as if at objects in the air; no evident rigidity, but resistance to efforts at flexing or extending all the limbs; sensibility on pinching, obscure generally, rather more on the left than the right side; intelligence almost destroyed, but he still answers to some questions, says he feels well; hearing very dull; sight doubtful; delirium constant; words distinct, but incoherent, moderately loud; no subsultus at the wrists; protrudes his tongue when directed to do so in a loud voice: it is whitish, but moist, and not turned to either side; deglutition easy, drinks eagerly, and takes a few spoonsful of arrow-root; abdomen tympanitic, not tender; no stools, nor vomiting; urine discharged in the morning; pulse regular, of moderate volume and strength, 120 in the minute; respiration 16, rather high, not stertorous; cough and expectoration entirely suspended. Ten ounces of blood to be taken by cups from the head. Ice to the scalp after the cupping. The pulse did not falter after the cupping, and in the afternoon ten or twelve ounces more of blood were taken by leeches from the temples, and a large blister applied to the back of the neck.

11th. No amelioration; same countenance and variable distortion of the mouth; less motion of the left arm and leg; constant

agitation of the right limbs; answers as indistinct as on the 15th, but less loquacity; pulse 116, still firm; two liquid discharges; urine retained, a pint was drawn off by the catheter; blister discharges much serosity. Apply twelve large Italian leeches to the temples. In the afternoon the answers were rather more distinct, and the sight seemed less obscure; motion and sensibility as before.

12th. Stupor and some delirium during the night; countenance less flushed; left eyelids widely open, pupils dilated; sight gone, except at intervals, when he attempts to point out objects, but in a confused manner; answers very rare and doubtful; mouth more distorted, more constantly deviated to the right side; sensibility very obscure in the right side, nearly destroyed in the left; rigidity greater on both sides, but no permanent contraction: it is equally difficult to flex or to extend the limbs; no subsultus; pulse 116, rather less strong, but regular; respiration not stertorous, 16; diarrhœa, with two liquid stools. Twelve leeches were again applied to the temples. In the night respiration became for a time stertorous, but there were no convulsions.

On the 13th the pulse was too frequent to be counted; sight and hearing completely lost; same state of the pupils; no evidence of sensibility on pinching any part of the body; rigidity general; mouth a little drawn to the right side; sweat abundant; secretion of urine continues, and still requires the catheter; deglutition very slow and difficult; no cries; the pulse became more feeble towards evening, and the patient expired during the night.

Autopsy, June 14, *at* 10, A.M.—*Exterior.* Great emaciation; no œdema, or lividity: rigidity moderate; percussion of thorax sonorous in the whole anterior part of the right side, flat above, and on the clavicle of the left, and rather less sonorous inferiorly than the right. On the posterior part of the chest percussion dull, at the upper part of both lungs, especially the left.

Head.—Longitudinal sinus empty; little blood on the exterior of dura mater. Arachnoid moist, but glutinous to the touch. Pia mater moderately injected, not infiltrated with serosity, and detached without tearing the cortical substance, which is of a light grayish pink colour, and perfectly firm; medullary portion very moist, white, moderately dotted with red points. At the base of the brain there is very little serosity, but the arachnoid generally is semi-opaque and lactescent. The opacity is greatest around the commissure of the optic nerves, and upon the pons varolii, where it is rough to the touch, from the presence of numerous semi-transparent granulations, similar in size and appearance to those found in the lungs. The granulations are closely disseminated through this part of the membrane, which is white and opaque in the intermediate space. The granulations may be traced upon the anterior lobes of the cerebrum, and on each side to the fissure between it and the cerebellum. In the fissures of Sylvius and in the lateral fissures, the granulations are the most numerous, and are there surrounded by a yellow concrete substance, resisting pressure, and closely enclosing the vessels of the fissure. The cerebral substance immediately in contact with the last-mentioned masses, is rather softer than elsewhere, but of a light ashen colour. The cerebellum and pons varolii are firm and pale. Lateral ventricles distended by three or four ounces of limpid serosity; fornix and septum lucidum pale, softer than usual, but not pulpy. At the posterior extremity of the right lobe of the cerebrum, a yellow tubercle, as large as a small pea, was found in the pia mater. Spinal marrow not examined.

Thorax.—Both pleuræ united to the ribs by strong and close cellular adhesions, more firm on the left than on the right side. *Left lung.* Upper lobe heavy, of a general dark colour, resisting pressure, but containing air at its anterior and inferior part. The pulmonary tissue is *filled* with an infinite number of semi-transparent, gray granulations, very equal in size, which in none exceeds that of a grain of millet. The quantity of these granulations is so great at the summit of the lung, that they there compose the greater part of the pulmonary mass, and replace the cellular structure of the lung. The lower lobe contains numerous granulations similar to those of the upper lobe, more abundant at the superior than the lower part of the lobe. The pulmonary tissue is permeable, and not injected, but as in the other, is darker than usual, from the great quantity of black pulmonary matter. No large or yellow tubercles found. Bronchi containing a little florid blood, but their mucous membrane is pale and transparent. *Right lung.* Upper lobe nearly as full of granulations as the left, but not in its anterior edge, which is permeable to the air; in other respects it is similar. Middle and lower lobes dark gray, soft, containing fewer granulations than the rest of the lungs. Bronchi pale, containing a little mucus. Bronchial glands dark gray, firm, not tuberculous nor cretaceous. Pericardium contains from one to two ounces of yellowish serosity. Heart firm, dark red, containing liquid blood and some coagula in the right side. Valves natural; aorta pale.

Abdomen.—Peritoneum without tubercles, containing an ounce or two of serosity. Stomach rather contracted, containing no liquid, but coated with a layer of very tenacious, white mucus. Mucous membrane mammillated throughout, offering numerous depressions, with no redness or thick-

ening of their edges, the largest not exceeding a line in breadth. The depressions are formed throughout the stomach, exeept at the great tuberosity, and do not extend to the cellular coat. In the great tuberosity the membranes are grayish, smooth, of good consistence, not thickened or injected; in the rest of the stomach it is nearly double the usual thickness, brittle, but yields strips nearly of the usual length; the injection is bright, and dotted in the pyloric two-thirds.

Small intestine eontaining a little yellowish mueus; membrane pale and firm. Glands of Peyer scareely visible, except near the valve, where three of them are nearly a line in thickness, of a livid red colour, and present from one to three rounded ulcers, with elevated perpendicular edges. Isolated follicles not visible. Mesenterie glands small, firm, not tuberculous.

Large intestine contains a little soft brownish mucus. The mucous membrane is no where injected, generally pale, not thickened; follicles not visible, consistence generally good, a little less than natural in the cæcum and aseending colon.

Liver rather smaller than usual, very hard, of a yellowish brown colour, the two substanees not distinct, not fatty or tuberculous, but greenish. Spleen firm, dark brown, eontaining one or two cretaeeous masses, not larger than peas. Kidneys firm, not tuberculous. Bladder distended with urine, but mueous membrane pale, and not tubereulous.

The preceding cases are the only examples which I have witnessed in America of the tubereulous meningitis of adults. The disease is not often found after the age of fifteen or sixteen years, but is very eommon in children, when it forms one of the diseases elassed under the term hydrocephalus. A number of eases were published in the Nos. of the American Journal for February and May, 1834, with an analysis of others, in all about forty. The evidenee of the fact shows that the fatal diseases of the brain and its membranes, which occur in ehildren above the age of two years, were almost peculiar to tuberculous children, and with one or two exceptions, tuberculous matter was discovered in the membranes of the brain. Not a few eases of the same tuberculous meningitis have been observed in adults, especially sueh as were already attacked by pulmonary phthisis, but in such eases the lesion has nearly always been confounded with simple meningitis. More aecurate observation, founded on the comparison of the pathological phenomena of children and adults, has shewn the rare occurrence of idiopathic meningitis. At the base of the brain, the disease is rather frequent, but it seems peculiar, or nearly so, to tuberculous subjects. I have met with the disease three times in adults. who were all tubereulous; one of the three was admitted into the hospital for pulmonary consumption, and the cerebral disease occurred after his admission. In children, where my field for observation was larger, nearly forty disseetions of meningitis were made, without finding a single exception to the law, that the meningitis at the base was never idiopathie.

The cases detailed by M. Andral, and in the work of Parent and Martinet, sometimes mention the existenee of tubereles in the brain, or its membranes, as well as in the lungs. The observations of M. Andral do not always mention the absenee of lesions in the organs least affeeted, but are eonfined to graphic deseriptions of the alterations which attracted the attention of the observer. I refer to the earlier observations of M. Andral, who has sinee adopted a most accurate and thorough method of observation. The greater number of the observations of MM. Martinet and Parent Du Chatelet were not made by themselves, but are extraeted from the notes of the internes of the French hospitals; they are consequently very ineomplete. In the work of M. Louis on phthisis, examples are given of patients in whom the immediate cause of death was a lesion of the membranes of the base of the brain; unfortunately, the attention of this admirable observer was not partieularly direeted to the cerebral lesions, and the deseription is less minute than could have been desired. In all the cases, or nearly in all, the disease of the membranes of the brain was regarded as an aecidental complieation of phthisis when the tubereles of the lungs were very numerous, but it was not eonsidered analogous to the tubereulous lesions of other serous membranes. A more complete deseription of the lesion adds considerably to the knowledge we possess of the development of the tubereulous affeetions, and demonstrates the necessity of an accurate examination of all the organs. This neeessity is not fully understood in the United States, and still less so in Great Britain.

The second and third cases, in whieh the disease was most advanced, presented a lesion of the lungs, which is very common in the tuberculous meningitis of children. There were very numerous gray granulations equally developed, and scattered throughout the whole of both lungs. These granulations were not unlike in eolour and size to those found at the base of the brain. The anatomieal lesions of the brain itself were chiefly eonfined to the base; the cerebral substanee immediately in eontact with the yellow, concrete, tubereulous matter, was generally softened, but the arachnoid was dry, and in the second case there was not much fluid in the ventricles. The dis-

ease in adults, as in children, is totally independent of the accumulation of serosity, although it is most frequently termed hydrocephalus.

The diagnosis in the first case, which I witnessed only during the two days preceding death, was very obscure. The absence of paralysis, and of rigidity, until the last days of life, rendered it very probable, however, that the lesion was seated in the membranes. In the second case the symptoms were doubtful, from some of them seeming peculiar to softening of the brain, and others indicating a tuberculous inflammation of the membranes. There was sudden retraction of the mouth, and imperfect paralysis in the contracted side, with confused intelligence, but not complete loss of motion, or of consciousness, on the other hand; the patient was scrofulous, was of a family in which tuberculous diseases were common, and had been long subject to headach, gradually increasing in intensity until the complete development of the disease. At the entrance of the patient, the subsultus tendinum, the floccitation, the countenance, and the frequent pulse, seemed to confirm the probability of tuberculous meningitis, but the great, and at first the constant rigidity of one side of the body, indicated the existence of softening of the cerebral substance. The autopsy showed that the diagnosis was doubtful, because both the tuberculous meningitis and the softening had occurred during life.

The treatment in the first and second cases was antiphlogistic, but there was not in either case much prospect of saving the patient; the second was almost hopeless at the time of admission. When tuberculous meningitis is fully developed, it almost necessarily terminates in death: in this disease, as in the tuberculous affections of other organs, the skill of a physician consists rather in preventing the development of tubercles than in promoting their removal when once secreted.

This case was on some accounts the most interesting, for the symptoms of the cerebral lesion commenced after the admission of the patient. It was received as a case of phthisis, and presented the usual symptoms of the disease, but the physical signs were doubtful, partly from the nature of the tuberculous lesion, and partly from the restless state of the patient, which rendered an accurate examination extremely difficult. The sound on percussion was clear on the anterior part of the chest, except at the left clavicle; the obscurity in the upper posterior part was doubtful, and the respiration was characterized only by the very imperfect vesicular sound. The signs were explained by the presence of the granulations without masses of tubercular matter in any part of the lungs. There was consequently no bronchial respiration, or flat sound on percussion. The conformation of the chest was that peculiar to phthisis; the depressions above and below the clavicles were much more evident than they usually are, especially on the side corresponding to the most diseased lung.

As soon as the symptoms of the disease of the brain supervened in this patient, the existence of tubercular meningitis was recognised, and little hope remained of saving the patient. The treatment adopted, was the local abstraction of blood to as large an extent as the patient could bear, with a blister to the back of the neck. Unfortunately, the result was as unfavourable as it usually is in the organic lesions of the brain: the cases terminated fatally, as those detailed in a former No. of the American Journal, which were observed at the Children's Hospital of Paris. Such results are, in the majority of cases, inevitable, and are sometimes ascribed by those ignorant of the true pathology of cerebral lesions to differences in the treatment, which is nearly equally fruitless in these grave diseases.—*American Journal of the Medical Sciences, Nov.* 1835.

Reviews.

A Brief Memoir of Sir William Blizard, Knt. F.R.S. L. & E., Surgeon and Vice-President of the London Hospital, read before the Hunterian Society, October 7, 1835; *with additional particulars of his Life and Writings.* By William Cooke, M.R.C.S., Secretary to the Hunterian Society. London: Longman and Co. 1836.

It is a melancholy pleasure to revert to departed worth, when it characterized a member of our profession. It is an example to students and practitioners, and excites the mind to activity and exertion. The path of fame is open to all who determine to pursue it. In the following biographical sketch we are presented with an example of unwearying perseverance, of inflexible honour, and of a humane disposition.

"The subject of our biographical sketch had not to boast of an opulent, or learned, or otherwise distinguished ancestry. He was born at the village of Barnes Elms, in Surrey, in the year 1743, being the youngest but one of five children of William Blizard, an auctioneer. The family were remarkable for longevity, his father and mother having both died at the age of eighty-six, and his grandmother (on his mother's side) at the advanced age of ninety. His early education was neglected, so that he had not the

advantage of a good classical instruction; but in after years, without assistance from others, he acquired tolerable facility in reading Latin. He was articled to a Mr. Besley, surgeon and apothecary at Mortlake. He devoted much attention to the study of botany; and an excellent herbarium, made during his apprenticeship, is still in the possession of the family.

"He commenced his professional studies in the metropolis at the London Hospital, under Mr. H. Thompson, a man of considerable talent and eminence in his day. About this time he assisted a surgeon practising in Crutched Friars, and attended the lectures of Pott and the Hunters, by whom he was much noticed. At an early period of his life he was elected surgeon to the Magdalen, which he attended for several years, retiring on the occasion of his appointment, upon the decease of Mr. Thompson, to the London Hospital, in 1780. His competitors on this occasion were Mr. Geo. Vaux and Mr. Andree, but he was successful by a large majority. During many years he performed all the operations, and attended nearly to the entire duties of the hospital for his colleagues, Mr. Grindall and Mr. Ňeale.

"He connected himself with Dr. Maclaurin, a Scotch physician, well known at the time as a teacher of anatomy. They lectured together first at a small place in Thames-street, and afterwards in Mark-lane; and in the year 1785 they founded the school at the London Hospital, which was the first regular medical school connected with a great hospital. The ground having been liberally granted by the Committee of the establishment, the building was erected at the expense of some thousands of pounds, chiefly supplied by himself, at a time when he could ill afford it.

"This theatre appears to have been opened on the 27th of October, 1785, on which occasion an ode written by Sir William, expressive of humane and correct sentiment, and set to music by Dr. Samuel Arnold, was performed at the London Tavern.

"Soon after his arrival in London he paid considerable attention to chemistry, and his acquirements in this branch of science were so highly estimated by Dr. Saunders, that he was requested to succeed him in the chair of chemistry at Guy's Hospital; but with this request he did not comply. As a lecturer, Sir William appears to have been deficient in those essential qualifications, arrangement and connexion. He abounded in digressions, and allowed too much liberty to a discursive fancy and warm imagination.

"As a practitioner, he was discriminating and decided in forming his opinions, energetic and skilful in the application of his means, and studious of as much simplicity as possible. He would sometimes remark, 'the improvement of almost all sciences is shown in growing simplicity, and this should be studied, as much as possible, in the treatment of disease.' He suggested, and first practised, the operation of tying the superior thyroidal artery in bronchocele, and was one of the first surgeons who secured the subclavian artery. He introduced the practice of large and repeated abstractions of blood in fractures of the ribs, of the success of which the case of recovery after the shaft of a chaise had been thrust through the chest, related by William Maiden, Esq., and attended by that gentleman and Sir William, affords a memorable instance.

"His judgment was particularly valuable in chronic diseases in which greater sagacity is required for detection, and much greater skill requisite in treatment, than in the acute forms of disease, when the outward expression is usually more clearly defined.

"In amputating he generally performed the flap operation. The last time he operated in public was in the year 1827, at which time he was eighty-four years of age. It was the removal of a thigh, and the stump healed perfectly in a fortnight. As an operator, he was remarkably cool and determined, never losing his presence of mind. His hand never trembled, and it is said to have been as steady the last year as at any period of his life.

"It was highly to the honour of Sir William, that when called into scenes of suffering, or to the infliction of pain in operative surgery, he was never insensible to the sympathy and kindness of the man, when he had to exercise the cool intrepidity of the surgeon. He had often the satisfaction to notice how the kind and sympathizing word appeared to mitigate anguish, and to inspire with fresh courage under the required incision; and the gratitude subsequently felt for the kindness of the manner was sometimes more prominent, in the acknowledgments of the patient, than for the dexterity and success of the operation.

"In intercourse with his professional brethren, his deportment was marked by a scrupulous regard to the forms of etiquette, invariably combined with candour and liberality. He was not exemplary, however, in the management of his time, and sometimes hazarded the good opinion of his brethren by a want of punctuality. High as he stood in rank, and notwithstanding disparity of years, he was exceedingly courteous in consultation with the younger members of the profession, even in the lower, but not the less useful department; and was ready to assist them in operations, provided there had been regular induction into the profession, and a due maintenance of the professional character. He had such an abhorrence of every thing empirical, as sometimes to be betrayed into a warm and hasty censure of proceedings wearing perhaps an

aspect of charlatanism, but of which he did not, at once, perceive the proper design and bearing.

"But he was most happy, and appeared to greatest advantage, in the wards of the hospital. His clinical remarks, and his oral instructions, were much valued; and he took advantage of every opportunity to disseminate the improvements and principles of his great preceptors, Pott and Hunter. The aptness and vivacity of his remarks, and his ready tact in directing the attention of students to the leading points in the cases under his care, rendered his visits at all times instructive. Nor was he unmindful of that propriety of language which has its great advantages when cultivated by the aspirants to a learned profession. On one occasion, when I had the pleasure of walking through the wards with him, he inquired of a student what was going forward in the operating theatre. The young gentleman replied, 'Mr. Headington, Sir William, is operating in a case of strangulated hernia, but the gut is quite rotten.' He pleasantly remarked, 'Pray, sir, do not call it *gut*, or say it is *rotten*, or you will be taken for a butcher; but call it *intestine*, and say it is *gangrenous*.' Had Sir William been a man of reading, and had he thus familiarized himself with the labours of his contemporaries in this kingdom and in other countries, it would have been advantageous to himself, and must have given much additional interest and value to his professional intercourse.

"No one knew Sir William better, or more correctly estimated his character, than that truly enlightened and eminent, but now lamented surgeon, John Abernethy. He was Sir William's pupil in anatomy, and dissected for his lectures, and they ever afterwards maintained towards each other feelings of the most cordial friendship. No apology is necesary for introducing here so just a tribute as was paid him by Mr. Abernethy, at the College of Surgeons; and it might be difficult to decide whether the tribute is most honourable to him whose excellence it attests, or to the distinguished surgeon whose generous heart dictated the expression of his admiration and gratitude.

"'In succeeding Sir William Blizard in the honourable office of Professor of Anatomy and Surgery, I think it right to inform my audience that he was my earliest instructer in those sciences; and that I am indebted to him for much and most valuable information respecting them.

"'My warmest thanks are also due to him for the interest he has excited in my mind towards those studies, and for the excellent advice he gave me, in common with other students, to direct me in the attainment of knowledge.

"'Let your search after truth,' he would say, 'be eager and constant. Be wary of admitting propositions to be facts, before you have submitted them to the strictest examination. If, after this, you believe them to be true, never disregard or forget one of them. Should you perceive truths to be important, make them the motives of action, let them serve as springs to your conduct.'

"'Many persons,' he remarked, 'acknowledge truth with apathy; they assent to it, but it produces no further effect on their minds. Truths, however, are of importance, in proportion as they admit of inferences which ought to have an influence on our conduct; and if we neglect to draw these inferences, or act in conformity to them, we fail in essential duties.'

"'Our preceptor further contrived by various means to excite a degree of enthusiasm in the minds of his pupils. He displayed to us the *beau ideal* of the medical character; I cannot readily tell you how splendid and brilliant he made it appear; and then he cautioned us never to tarnish its lustre by any thing that wore even the semblance of dishonour. He caused the sentiment of the philanthropic Chremes, in the Heauton-timorumenos of Terence, to be inscribed on the walls of the hospital surgery, that students should have constantly before them an admonition to humanity, drawn from a reflection of their own wants:

"Homo sum; humani nihil a me alienum puto."

Abernethy's Inquiry into the probability and rationality of Mr. Hunter's Theory of Life.—pp. 1, 3. 1814.

"Whatever Sir William undertook he pursued with unwearying perseverance. His exertions at the London Hospital were not limited to the establishment of a school, and to the routine performance of the hospital duties; but they were unceasingly directed to the extension of its sphere of usefulness as a school of medicine and surgery, and as a charitable institution to meet the exigencies of disease and accident. To his benevolent and active endeavours this hospital owes, in great measure, its present state of prosperity, and its enlarged capability of usefulness. His own interests were repeatedly sacrificed to promote these great objects. He induced most of his wealthy patients to become governors, and at a period when its funds were greatly depressed he made innumerable applications for support and assistance, and spared neither means nor labour in urging its claims on public attention. It was evident that he had not miscalculated in his reliance on the generosity of his country, and it would have been a more than ample requital for all his efforts had he received no other reward than that of awakening benevolent feeling, and directing it to objects so needy, and so deserving, as the generality of the applicants for hospital relief."

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On the Perforation and Division of Permanent Stricture of the Urethra by Lancetted Stilets; with Observations on Inflammatory Stricture, and various Urethral Affections. By R. A. Stafford, Surgeon to the Mary-le-bone Infirmary, &c. Third Edition. Longman and Co. 1836.

A VAST diversity of opinion prevails on the treatment of stricture, and has led the author of the work before us to propose a new and apparently difficult mode of treatment; and he now adduces conclusive proofs not only of its efficacy, but of the rapidity and safety of the cure. He has never seen mischief arise from the operation; and in no instance has a false passage been made, nor has extravasation of urine, hæmorrhage, or any other bad symptoms ensued. Strictures that had existed for years have been removed in a very short time, and with very little pain. Some eminent surgeons approve of the operation, but in our opinion a vast majority decline to adopt it. If the plan be good, it cannot fail to be generally adopted. There is much new matter, and a great number of cases introduced in the present edition.

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Remarks on the Unity of the Body, as illustrated by some of the more striking Phenomena of Sympathy, both Mental and Corporeal, with a View of Enlarging the Grounds and Improving the Application of the Constitutional Treatment of Local Diseases. By George Macilwain, M.R.C.S., Surgeon to the Finsbury Dispensary, &c. 8vo. pp. 294. London: Highley. 1836.

THE object of the author is to prove that the phenomena of sympathy demonstrate the unity of the body, and that the mind furnishes its quota of illustration. This is a subject of considerable importance, and very successfully treated by the author. He is evidently a staunch disciple of the intestinal school, and dwells particularly on the chylopoietic viscera. He gives but a very brief account of sympathies; indeed, he candidly admits, "there is no one sympathy of which twenty more manifestations might not have been mentioned." Imperfect, however, as this work is, it will prove instructive to students and practitioners. It is an exemplification of Mr. Abernethy's doctrine, with numerous illustrations. It does not admit of analysis, for, to do it justice, the greater part of it should be quoted.

ANOMALOUS CASE OF LITHOTOMY.

BY PROFESSOR LIZARS.

A SURGEON attached to a large hospital has peculiar opportunities for improvement, and he fails of his duty, if he either neglect them, or conceal the useful results of his observation and experience. Success, though it flatters vanity, is at best an equivocal proof of merit, for it may happen to the rash and unskilful. Successful cases, in ordinary circumstances, when published, afford but little information; cowardice may be unwilling to divulge the unsuccessful, but these are for the most part our proper instructors; from these we learn whether nature or art is the more to be blamed for any untoward event; but whether successful or unsuccessful, those cases are invaluable which lead to the detection of such morbid deviations as would certainly occasion the death of a patient in the hands of a timid or irresolute operator. Of this last class is the following case.

James Brown, a healthy-looking man, fifty-nine years of age, entered the hospital on the 29th December last, and presented the usual symptoms of stone in the urinary bladder, under which he had laboured during the last eight months. He had been in this hospital seven months ago under the late Professor Turner, who sounded him, but detected no calculus. The day after his admission he was carefully sounded, but no stone was felt; the bladder was rough and fasciculated. He was ordered warm baths, leeches to the region of the pubes, the mistura aquæ potassæ, the uva ursi, and a seton over the pubes. By these means all irritation having been subdued, he was again sounded, and a stone distinctly perceived. A dose of castor oil was administered; and on the following day the lateral operation was performed.

All the preliminary steps having been taken, and the existence of a calculus again ascertained, a large staff was inserted, which could not be made to pass the prostatic portion of the canal. A smaller staff was next employed, which apparently entered the bladder, as its handle was loose and moveable. One of my colleagues held it over the pubes, whilst I commenced, and cut down to the membranous portion of the urethra. I then proceeded seemingly through the left lobe of the prostate gland, which was hard, cartilaginous, and studded with calcareous deposition. The left forefinger, which guided the lithotomy knife, seemed to enter the urinary bladder, and a little fluid, considered

to be urine, flowed out, when I begged the staff to be withdrawn. I next inserted a pair of forceps; but instead of a calculus such as the sounding had led me to expect, I discovered nothing but calculi, varying in size from that of a millet seed to that of a pea. I now used a searcher, but was not more fortunate. My finger felt a pouch equal in magnitude to a urinary bladder, which contained numerous small calculi. One of my colleagues, at my request, introduced his finger, and the sensation communicated so nearly resembled that of a mucous membrane, that he suspected I had wounded the rectum, but convinced himself of the contrary by examining that viscus with the forefinger of his other hand. Another of my colleagues was also requested to examine, and he, with a scoop, removed some of the small calculi already mentioned.

I now inserted a catheter, which passed the entrance of this pouch, got into the bladder, and urine flowed out. The catheter was replaced by a staff, along which the knife was carried through the neck of the bladder, as there was no substance like prostate gland, and a stone of the size of a flattened plum was instantly extracted.

The first incisions into the pouch occupied about one minute. The second incision and extraction of the calculus about another minute. From fifteen to twenty minutes were spent in examining this pouch.

The patient has had no bad symptom—no case of lithotomy ever went on more favourably—and this is now the tenth day from the operation.

The anomalous pouch, which rendered this case so complex, seems to me to have been nothing more than the external fibrous capsule of the left lobe of the prostate gland gradually dilated until it became as large as the bladder itself.

Crosse, in his work on Urinary Calculus, p. 34, says, "Concretions in the prostate gland, commencing in its ducts, often at a distance from their urethral orifice, even at the very bottom of a duct, go on increasing until each duct is enlarged into a pouch, rendering an escape of the concretion into the urethra impossible; the narrow orifice by which the pouch communicates with the urethra becomes often closed in consequence of inflammation and effusion of lymph; the pouch is a secreting cavity which furnishes additional deposit; and as the concretions enlarge or multiply, the pouch enlarges in the direction where there is least resistance towards the lateral or posterior surface of the prostate gland."—See Plates ix, fig. 1; and xi, figs. 2 and 3.

Wilson, on the Urinary Organs, at page 353, also observes, "I have met with a urinary calculus larger than a common-sized olive in a cavity of the prostate gland, where, from the orifice which first admitted it having contracted, or the size of the calculus having enlarged, the stone could not be pressed back into the urethra, and the whole of the prostate gland had been changed into a capsule surrounding it."

I possess a preparation in my museum with cysts exterior to the urinary bladder, one of which may hold from four to five ounces. These communicate with the bladder. Another preparation where the right lobe of the prostate gland forms one capsule.

I confess freely that I was not prepared for the complication just described, nor am I ashamed to confess it, since no mention is made of such an anomaly in the writings of the most eminent surgeons, if we except Crosse and Wilson, from whose works I have quoted above, but which I had not seen.

JOHN LIZARS.

Edinburgh, 38, York Place,
21st January, 1836.

The London Medical
AND
Surgical Journal.
Saturday, February 20th, 1836.

PROGRESS OF MEDICAL REFORM.

We are now enabled to state, that the whole profession in this country will be thoroughly reformed. The Parliamentary Committee on Medical Education and Practice is to resume its labours. Every abuse is to be exposed to light, and presented to the legislature for consideration. This will occupy much time, and we fear prevent legislation during the present session of parliament.

A most important letter was published in the *Courier* of the 13th inst. by Mr. Warburton; the substance of which is, that goverment will appoint a temporary Senate, to suggest the plan for the organization of the intended Metropolitan University. The conclusions of this Senate are to be submitted to parliament, together with the evidence given before the Medical Committee, and the whole of the laws relating to the profession are to be suited to the spirit of the times.

But a most important question arises as to the selection of the members of the temporary Senate. Are

they to be exclusively composed of a certain number of representatives of the existing Medical Corporations, or are an equal number of individuals to be selected from the profession at large? It must be very manifest to every medical practitioner, that the corporations alone, would do infinite mischief, as from their past conduct, as well as from their recent evidence before the Medical Committee, they have not kept pace with the spirit of the age, and are totally incompetent for such an appointment. It would be folly to refer to them exclusively, and impossible for the legislature to place any reliance upon their recommendations. It is said, that the ablest, most scientific and literary characters will form the Senate; but we entertain no small degree of fear for the success of the medical department, unless a proper number of physicians, surgeons, obstetricians and general practitioners, and not corporators, are chosen as the real representatives of the profession. For our own parts, we have the fullest confidence in the enlarged views of the present government, and of Mr. Warburton, and we are satisfied that a sweeping reform will be carried, and that the intended University will be based upon the broadest principles of justice.

PUBLIC EXAMINATIONS.

A VAST deal of noise has been made by our contemporaries about public examinations, and especially by those who have not submitted to the ordinary ordeal; as if the public at large were competent to form a correct opinion on the fairness or unfairness of the examiners. The custom of testing the knowledge of candidates for medical honours in private, has been adopted for centuries, for the express purpose of subjecting them to as little exposure or annoyance as possible. Were the new plan adopted, how many would have reason to exclaim—

Obstupui, steteruntque comes, et vox faucibus hæsit.

The terror of examination is bad enough in private, but would be more than most students could bear in public. There would be little gained, perhaps, even by allowing the profession to be present. We feel convinced that no examiners, as a body, would be so inhuman as to annoy a candidate, and blast his hopes, on account of private reasons or caprice; and so far from the examiners being excessively severe, the majority of those of the Royal College of Surgeons admitted before parliament, that if they acted as strictly as they might, they would not approve of one in ten of those admitted into the college. The excuse they offered was, that it would be intolerable to the public to reject as many as deserved it—ruin would attend those remitted to their studies—while parents and relations would feel excessively annoyed and dissatisfied.

That there may be one or more unfeeling and unfair examiners in another quarter, there is no room to doubt; but this is not marvellous in a court so constituted, which is composed of shareholders in the drug trade, most of whom have not received a good education, or had their asperities smoothened by the polish of the Universities. But the examiners of the Hall are by no means so harsh as they have got credit for; we have personal knowledge of the fact, that they have given licences to individuals most grossly ignorant of the principles and practice of medicine. This is ascribed to good luck, chance, or favouritism; but be the cause as it may, the fact is certain. We have known candidates who could not decline a single Latin noun, or conjugate a single verb, who were rejected on their Latin, and who complained in no gentle terms of injustice. Others were as ignorant of therapeutics, and these also declared the examination to be partial. What a sorry figure such candidates would

make at a public examination! and yet a demand is made that the incompetency, ignorance, and confusion of students, ought to be exposed to the world. We are ready to admit that the eye of the public would be fixed on unfair examiners, but it would be a certain cause of failure to a great majority of students.

It is also to be recollected that the London Boards are not authorized by law to examine in public; and therefore it is ridiculous to ask them to do so.

We also regret to observe the association of medical students for the protection of their interests, as if any one was about to infringe upon them, or as if any of their endeavours could influence the public or the legislature. As the sincere and disinterested friend of medical students, we suggest to them, that their association for the advancement of their studies, would be infinitely more beneficial to them in after life, and more agreeable to their friends, than meddling in general politics. They have a certain path to traverse, and from this they ought not to allow themselves to be diverted. When they commence the practice of medicine, they will be summoned to men of all parties, and may lose the most influential and best patients, on account of Whig, Tory, or Radical principles. It was for this reason that the long established ethical rule was proposed to the medical profession—"avoid politics and political assemblies." What does it concern a medical practitioner whether his patient be of one or other political or religious belief? and who ever heard of Harvey, Sydenham, or Hunter, having interfered in, or allowed themselves to be influenced by politics or religious controversy?

No member of the medical profession, of respectability, ever allowed himself to be influenced by such matters: the beneficial character of his calling is to afford relief to every member of the human family. He should soar above such narrow considerations, and belong to no political party. It is true that he has a right to entertain his own political opinions, but he has no right, and it is contrary to the established morality of his profession, that he should obtrude them upon any one of his patients, or that he should allow himself or his family to be injured by them. He ought always bear in mind, that the greatest temporal concern of man—life, health, and happiness—are committed to his care; the greatest confidence that one human being can repose in another, is reposed in him: the common occurrences of life are inferior to his calling—"urgentiora te vocent negotia."—Superior matters engross his attention.

We are satisfied that the experienced members of our profession, parents, and governors, will agree with us in opinion, whatever their sons or apprentices may think to the contrary.

LONDON MEDICAL SOCIETY.

Monday, February 15, 1836.

DR. WHITING, PRESIDENT.

Injuries of the Uterus—Effect on Labour—Rupture of Uterus—Plan of Proceeding in such Case.

DR. BLICKE, at the last meeting of the Society, stated a case, in which he had to give evidence at the Old Bailey, and which involved a point of pathology, as well as one of practice, which he wished to have the opinion of the Society on. A woman was taken in labour on the Tuesday morning: a midwife was sent for about seven, A.M. From eleven to half-past two, the pains were severe, when, at the latter period, the labour suddenly ceased. At twelve, the following day, Dr. B. was called in. On examining, he was unable to detect any appearance of an infant, os uteri, or any thing; indeed, he scarcely knew at first what to make of it. The midwife, an experienced one, stated that she distinctly felt the child's head at eleven o'clock. He then suspected rupture of the uterus had taken place, though it had not been accompanied with the usual symptoms indicating that occurrence. There was no asphyxia, which is generally a usual symptom. The woman had cried out—"Some-

thing has burst." Two pains only came on after. Dr. B. did nothing in the case, as he thought it better to leave it to nature. She gradually sunk, as though dying from hæmorrhage, and she died the following morning at one or two o'clock. The body was examined fifteen hours after death; a bruise was distinctly traced through the parietes of the abdomen: there was a slight opacity in the corresponding portion of the peritonæum, like the effect of previous inflammation. The uterus was in a perfectly healthy state, and *most firmly contracted.* It was ruptured from the cervix to the fundus. The child was full, and well formed. The woman was well-formed and muscular, and the mother of three children. The burial of the woman was stopped, and an inquest was held on the body on the following grounds:—On the first visit to the patient, she said she was sure he (Dr. B.) could not save her, her husband had cruelly ill-treated her six weeks before, and she felt convinced it would be fatal to her. It appeared that her husband had forcibly knelt on her abdomen, and beat her violently about the head. Coldness and shivering came on at the time: she had never been well since. Dr. B. stated on the trial, that his opinion was that the injury she had sustained from her husband had produced some partial lesion of the uterus, and that when that organ came to be in action, during labour, it was unable to overcome the resistance of its contents, and was ruptured. He was induced to this opinion also, from the fact of the uterus being so perfectly healthy, evidently showing there was no previous disease. A celebrated accoucheur was sent for, who gave it as his opinion that an injury inflicted on a pregnant woman, if it did not produce labour at the time, would not, six weeks afterwards, have any thing to do with producing rupture of the uterus. When this gentleman was asked by the Court what he should do if called to a woman whom he believed had rupture of the uterus, he said he should turn and deliver her immediately. Now, he (Dr. B.) contended, that in all cases, except where there is rupture of the vagina, it would be impossible to adopt such practice. If there ever was a case in which it could be done, this was certainly that one, considering the direction of the rupture, as it would give the greatest room or possibility of adopting such a measure. He was convinced the proper treatment would be to leave such cases to nature.

Mr. Kingdon had no doubt that an undue attachment of the placenta, the result of inflammation in consequence of a blow, did take place, and destroyed the woman by hæmorrhage at the time of labour. He related a case in point, in which the injury had been some time before received.

Mr. Greville Jones thought that blows on the uterus might vary as to their consequence, in the same way as they varied in other portions of the body.

Mr. Pilcher referred to a case which Dr. Blundell used to relate, where the uterus was ruptured. He (Dr. B.) introduced his arm, and removed the child. The mother did well.

Mr. Clifton met with a case, eighteen years ago, in a woman who had had several children. The head of the child was descending, when the labour-pains suddenly ceased. The usual symptoms of rupture of the uterus came on, and the child was expelled into the abdomen. Dr. Ramsbotham, sen., was sent for: and, nearly four hours after, he removed the child, by introducing his hand through the rupture into the abdomen. The mother lived three days. Dr. R. had published this among the "Cases" which he gave to the world some years since. He had no sort of doubt his hand was in the abdomen. Dr. R.'s book was referred to, and found to agree with Mr. Clifton's account. Seeing two eminent obstetricians, Drs. Merriman and Ryan, in the room, Mr. Clifton requested their opinions on the subject.

Dr. Merriman had no doubt that Dr. Blicke had stated correctly, that in his case there was complete contraction of the uterus; but, as far as his experience went on the subject, he had never seen so perfect a contraction, but only a partial one. He believed that in many cases where it was thought the hand had passed through the rupture into the abdomen, that the child was not altogether in that cavity, but partly in the uterus; and the practitioner had been mistaken in supposing his hand was in the cavity of the abdomen. When the child was actually in the abdomen, if the operator was present at the moment of the rupture taking place, he might then remove the child; but if he was not called in till three or four hours after the contraction had taken place, and the os uteri had to be dilated before the child could be reached, in such cases he thought it better to let the child remain in the abdomen. Some years ago he was called to a case in which rupture of the uterus had taken place: on arriving, the os uteri was so much contracted, that it was vain to attempt to introduce the hand. The case was left to nature: the woman lived seven or eight days. He (Dr. M.) regretted to find that, on the sixth day, a discharge coming on, the gentleman with whom he was in consultation, had introduced his hand through the uterus, and removed the child. On examining the body after death, a membrane had begun to form round the place where the fœtus had laid.

Dr. Ryan had met with cases bearing on the subject of discussion. He could not agree that there was such difficulty in passing the hand as had been thought by some

gentlemen present. He could perfectly understand the cases related by Mr. Clifton and Mr. Pilcher. If the rent in the uterus was large enough to admit the child through, it was large enough to admit the hand. He should certainly recommend, in those cases where there was a practicability of removing the child, that it should be removed, even many hours after the rupture.

Mr. Dendy considered that whenever the child could be removed with facility, it should be done. He thought the uterus would bear more than was generally supposed, with impunity. Look at the violence it suffered during the parturient action. Was a little more force likely to do harm?

After a few more observations, the Society adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 13, 1836.

DR. ADDISON, PRESIDENT.

Case of Paralysis—Occurrence of Apoplexy during Pregnancy—Action of Tartar Emetic.

Dr. Johnson had seen the patient to-day whose case we gave in our last. The stomach now retains nearly double the quantity of broth that it did on the first ingesta, without much inconvenience. Three shocks of electricity had been given during the week from the back of the head to the larynx. The first shock produced considerable excitement, and the tongue slightly moved; some of the muscles of the throat were also thrown into action on the second application. Dr. J. was not present at either of these applications, but Mr. Blood, the gentleman with whom he had been in consultation in the case, was present at all of them. To-day some words were partially articulated and understood; but it was remarkable that the injections of broth into the bowels had produced most distressing efforts to vomit, even more distressing than when the injections were first thrown into the stomach itself. Since the commencement of the treatment in the first instance by Dr. J. no broth has been ejected from the stomach, or excreted from the bowels; yet in spite of this great quantity of nutriment constantly administered to her, Dr. J. thinks the pulse is getting weaker. He proposed the next galvanic shock should be given to the region of the stomach, the eighth pair of nerves being evidently much affected.

Occurrence of Apoplexy during the period of Utero-Gestation.

Mr. Streeter inquired the experience of the Society in the occurrence of apoplexy during the period of utero-gestation, and also what influence such event had on the pregnancy, whether the female went the full period after or not.

Dr. Uwins, during rather an extensive practice, did not remember the occurrence of apoplexy during the time of pregnancy. He was inclined to think that even if a person were disposed to be affected with apoplexy, the occurrence of pregnancy would act as a safeguard against the occurrence of the disease.

Dr. Ryan remembered one case in which most of the symptoms of apoplexy came on in a pregnant woman at the eighth month of gestation. In consequence of her having taken 25 drops of laudanum convulsions came on and continued some time, with the ordinary symptoms of apoplexy. The stomach was cleared as soon as possible by means of an emetic of the sulphate of zinc, the stomach pump was applied, and bleeding resorted to, yet she continued under the symptoms from eight A. M. to ten P. M. Stimulating applications were also used to the spine and extremities. Under all these remedies she got better, but was delivered during the period of her insensibility, and was totally unconscious of that fact. The fœtus was expelled without much uterine action.

Mr. Streeter had a relative who, within the last five weeks, has had an apoplectic fit, she being at the time three months advanced in pregnancy. The patient was 33 years of age, of a florid complexion, and short necked. She had had two miscarriages before at the third month, and two premature labours at the sixth or seventh. On the morning of the day on which she had the fit, she had gone out to call on a friend, when a particular expression of the eyes and alteration of the speech were so evident as to be noticed by a child. She said she felt very cold and numbed, but should soon be better. On arriving at home, she repaired to the sitting room, when finding the fire required replenishing with coals, she lifted up the scuttle for that purpose; she was seized with a numbness of the side, and fell or slipped upon the floor from a chair. She remained in this state for ten or fifteen minutes before any one came to her, when she was lifted up: she got sick and pale, and shivered all over. With the assistance of two persons she was enabled to get up stairs: as soon as the circulation rallied, blood was abstracted generally, and leeches applied over the left temple. Labour had been going on ever since the period of the accident, now four or five weeks since.

The paralysis of the leg had in a great measure subsided. that of the arm and face still remained. He (Mr. S.) believed these sort of cases to be exceedingly rare. The great practical question appeared to be this: If miscarriage come on during apoplexy, should it be encouraged, or attempted to be prevented?

Action of Tartar Emetic.

No member rising, the adjourned debate on Dr. Stewart's paper on the doses of medicine was resumed, when Dr. Johnson, the mover of the adjournment, remarked that Hahnemanism was not the legitimate subject of discussion, and he was not inclined to pursue it further, but he believed the homœopathists, as they called themselves, employed the usual means used by scientific medical men, curing their patients by such means, and then attributing such cures to homœopathy. They sent their own medicine, therefore the profession had no means of detecting their knaveries; but he had no doubt the system would soon find its own level.

A very long and animated discussion on the mode of action of tartar emetic now followed, in which Dr. Johnson and Dr. Addison [the last gentleman having been unanimously called upon by the Society to state his opinion on the subject, and whose able and admirable speech, want of space prevents us from giving] contended that however ingenious the theories advanced in explanation of the *modus agendi* of this medicine, or, indeed, of any other, that in fact we knew nothing of the action of medicines but from their effects.

Mr. STREETER had seen a case in which a strong hearty lad, aged 17 or 18, had been in a state of such imminent danger for a few hours, as to be despaired of by his medical attendants, in consequence of having taken six grains of the tartar emetic.

Mr. KING had examined several bodies, in which were traces of most violent inflammation of some portion of the intestinal tube, which had produced death, the patients having fallen victims to large doses of tartar emetic. Two cases he had seen of this description were patients of Laennec.

After some further observations, the Society adjourned.

ROYAL INSTITUTION.

Friday, February 12, 1836.

DR. GRANT lectured on the organization of fishes as adapted to the element in which they are calculated to exist. The lecturer commenced by calling attention to the beautiful harmony displayed throughout nature, and the adaptation of every element to the animals which reside in it. The animals of the ocean were a thousand times more various than those of the earth or air; they were less perfectly organized, because the waters were ill adapted for creatures of a perfect organization. Fishes were so organized in every part as to be able to traverse all parts of the ocean. The frame-work of fishes was cartalaginous, to give flexibility; and in those few fishes whose skeleton was osseous, it was still flexible and pellucid. The bones of the head of fishes were moveable and overlapped each other; they grow during the whole life of the animal, not to keep pace with the narrow system within, but rather to distance it; they keep pace with the other parts of the body; this was not the case in warm-blooded animals. The muscular system partook of the disposition of the osseous. Their nervous system is imperfect. What have they to do with intellect, living in the dark abyss of the water? The eyes of fishes are large and immoveable—from the darkness of their place of abode and the imperfect development of the great cerebral centres—their small brain being permanently in the very embryo state—the very earliest condition of the human fœtal brain. All sense seems to be absorbed in their capacious stomach. The ear is closed externally by solid bone, but they have no soft sounds to charm them in the silent deep. They are dumb, having no lungs or larynx—they should be so, being so deaf. They have nothing to mind but their stomachs: these are very capacious, and they are very voracious. The Professor then spoke of all things in air and earth descending to be the food of fishes; and that we may trace the dust of Alexander in some one of them.

Case of Ovarian Dropsy, removed by the Accidental Rupture of the Cyst. By Dr. Addison.

THE subject of the following case was received into the Female Clinical Ward on the 19th of March, 1834. The history, as taken by Mr. Bird, Clinical Clerk at the time, is as follows:—

"Ann Binks, aged 44, a tolerably healthy-looking woman, who has been a widow three years, and who has always resided in London, states, that her health has usually been very good, till within the last five years. She had one child, twenty-five years ago; has never miscarried; and at the present time menstruates regularly. She has had some cough almost every winter. Five years ago she first noticed a swelling in the left iliac fossa, about the size of an orange, but which rapidly grew larger. For this, and for some general anasarca, she was admitted into this ward, two years ago. She was, at that time, about the size of a seven months' pregnancy. At the end of three months, she was discharged, cured of the anasarca; but still the subject of ovarian dropsy, the abdominal tumour at the period of her discharge, equalling the size of a five months' pregnancy. She, however, was able to go out to service; and continued tolerably well until Monday the 10th instant; when, being engaged in closing some heavy shutters, and standing upon a pair of steps for that pur-

pose, her foot slipped, and she fell, pulling on her, in the fall, the steps, which struck her across the abdomen. She suffered at that moment excruciating pain; became sick and faint; and was then placed in bed, and had medical assistance procured. She now perceived that the fluid accumulation, which before the accident was circumscribed, had spread over the whole abdomen, rising to the diaphragm, and obstructing respiration. She appears to have then had an attack of peritoneal inflammation, for which she was bled, cupped, and leeched, with some relief; but being unable to perform her duties, she applied to be admitted here this day, the 19th of March. On admission, her face was pale and anxious, surface cold, circulation languid, abdomen distended with fluid; and she complained of great pain, on applying pressure over the abdomen generally, but especially over the lumbar and iliac regions. The bowels were open; tongue very red; she felt thirsty; her pulse was 98, and small; urine copious, and very turbid; and she stated that she had occasionally passed blood by stool since the accident."

It is unnecessary to enter into any minute details respecting either the progress or the treatment of the case. Her symptoms, on admission, were those of general peritonitis, and a moderate degree of bronchitis; for these she was bled to a small amount, fomented, and had calomel, antimony, and opium administered internally. Under this treatment she improved: her gums were reported to be sore on the 22nd; after which the fluid rapidly decreased; so that on the 5th of April there was no fluctuation whatever, and the remains of the ovarian tumour could be distinctly traced, stretching across from one iliac fossa to the other.

On the 7th of April, the descent of the cyst, or some other change induced by the accident, appeared to offer an obstruction to the ascent of the blood through the iliac vein; for she had an attack of phlegmasia dolens, but by no means severe, affecting the left lower extremity. This was subdued, and almost entirely removed in about a fortnight.

This woman is now, December 1835, servant in a family residing in Cheapside; and although she can still distinguish a small tumour in the left iliac region, she has never experienced any return of the dropsical enlargement.—*Guy's Hospital Reports, Jan.* 1836.

Foreign Medicine.

Extra-uterine Pregnancy—Nine Months' Gestation—Death of the Fœtus—Cure of the Mother—the Conception remaining in the Abdomen.

Rosalie Capon, aged 44 years, of a lymphatico-bilious temperament, menstruated at 14 years of age, not having until then suffered from any particular disease; married in her 24th year, and had successively, in the space of two years and a half, two children, and one miscarriage. The first infant lived three months, and the second fourteen. She remained a widow for two years, then married M. de la Chambre, and was nearly thirteen years and a half without any sign of family. Towards the end of November, 1827, having passed her menstrual period by eight days, she experienced lumbar and abdominal pains, until then unknown. Suspecting the commencement of pregnancy, she engaged Mde. Carbonnier, *élève de la Maternité*. The latter recommended her to be bled—advised abstinence and hip-baths. The abdominal pains continued; there was general debility, and the patient was unable to leave her bed for nearly six weeks. During this interval the catamenia reappeared: they flowed abundantly at several periods, and did not cease until the month of January following, 1828. The midwife afterwards ascertained by the ballottement that the woman was pregnant. The health of the patient remained feeble; she suffered very frequently from pains in the loins, that weakened her very much. About the month of June, the abdomen had attained the usual size of the seventh month of pregnancy. The uterus (extra-uterine pregnancy was not then suspected) seemed to be regularly developed. The motion of the fœtus was perceptible externally; then the menses again appeared during the space of fifteen days.

The development of the abdomen, and the motion of the infant, augmented progressively until about the 10th of September, when, without any known cause, the movements, after having been much more violent than usual, suddenly ceased. Mde. Carbonnier called for the third time, expressed doubts that the infant was alive, and announced the delivery certain in a few days. The neck of the uterus was shortened, soft, and disposed to dilate easily. In a short time afterwards, the breasts swelled and furnished an abundance of milk.

On the 29th of September, M. Cazenave, of Bourdeaux, was called to see the patient, and found her in the following state:—The features drawn, and a scrofulous abscess occupying a portion of the right cheek; constant fever; thirst; general prostration; abdomen slightly painful and flaccid; the tumour formed by the presence of the infant then rose above the umbilicus; the head of the fœtus seemed to be perceptible through the abdominal parietes, towards the iliac fossæ—the knees to the right and high up, the breech and back being downwards, and transverse to the superior strait. On examination, the neck of the uterus was felt of the usual length, but dilatable, and easily permitted the introduction of the finger, as it is often found some days before delivery.

The uterus was so high up that it could not be reached with the finger; the sign afforded by ballottement was not felt, and the presenting part was not distinguishable; the infant had not for a long time given any sign of life; the breasts were soft, and still contained a great deal of milk; the patient felt the infant roll every time she turned from one side to the other.

On the 15th of October the health began to improve; the scrofulous abscess disappeared from the use of the simplest remedies; the patient was able to get up and take some light food. About the end of October she was much better; on examination, the state of the os uteri, instead of being like an approaching delivery, seemed to indicate a recent labour; the milk was gone; the strength increased; the abdomen depressed and diminished in volume.

She remained in the same state until the month of February, 1829, when menstruation reappeared, and continues regularly to the present day.

At this time, March 26, 1835, she enjoys very good health, and experiences no other inconveniences, except those inseparable from the presence of so voluminous a foreign body in the abdomen; the mobile and unequally projecting tumour formed by the fœtus may be felt through the abdominal parietes, without the organs being precisely known. On examination a round, irregular tumour is recognized near the right iliac fossa, which is hard and covered with sinous rugosities, that seem to be attributable to the posterior part of the deformed thorax. The neck of the uterus is in the normal state, and this organ, situated to the left, and behind the tumour, has preserved its physiological state.

Many conjectures might be made upon what species of extra-uterine pregnancy this was: was it of the tube of the right ovary? or was it abdominal? The last seems to me to be the most probable. An autopsy can alone decide positively, and the patient does not seem likely soon to give an opportunity.

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Abridgment of the Duration of the Treatment of Syphilis by Simple and Mercurial Methods.

The usual duration of treatment for syphilis, by the simple and antiphlogistic method, is from twenty-eight to thirty-two days, according to M. Devergie. Among 10,000 venereal patients, whom M. Desruelles treated in the same manner, and obtained the same results, the mean duration of the mercurial treatment was fifty-one days.

M. Barthélemy, of Saumur, found the same results among 700 venereal patients treated in 1833.

M. Villars, of Besançon, gives on an average thirty-seven days for the simple treatment, and fifty-one for the mercurial.

M. Rapatel, of Rennes, among 1187 patients treated by the simple method, gives an average of thirty-four days; and 318 treated with mercury, fifty-nine days.

After these comparative results, which are in favour of the simple and antiphlogistic method, M. Devergie describes his mode of treatment, which consist of a general and particular form. For the general treatment, light foods, emollient drinks, general and local bleedings, rest, abstinence, &c. His simple individual treatment varies according to the local affections and the symptoms.—*Arch. Gen. de Méd.*

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The Employment of Nitrate of Silver against Chilblains.

Dr. Gamberini recommends the following remedy to prevent the ulceration, and even to disperse chilblains; they should be moistened with a piece of linen slightly soaked in water, so as to keep the skin soft and moist, without being exactly wetted; and when thus prepared, a piece of nitrate of silver is to be rubbed on the chilblain; moderate pressure should be used, and it should be slowly passed several times over the part. In a few minutes the epidermis becomes very slightly whitened; at the end of some hours, and generally when the part is exposed to the light, as in chilblains of the hands, the epidermis becomes brownish, and presents a greater consistence to the touch. The effect is just the same as that produced on the fingers when a piece of this caustic is handled without precaution. A strong pressure, or more prolonged application of the remedy will denude the part; the same thing will happen if the surface be too much wetted before the cauterization. But, in general, we may say that when the cauterization is maintained within proper limits, it causes no pain, and rarely a slight pricking.

This simple treatment relieves the patient from all inconvenience in the course of a few days. It may, however, become necessary to re-apply it once or twice.

FRENCH HOSPITAL REPORTS.

Incarnated Toe Nail; Ambrose Paré's method modified—Cure.

A YOUNG man was admitted into La Pitié, under the care of M. Lisfranc, with the nail of the right great toe deeply incarnated in the external soft parts. M. Lisfranc thought that pulling off the nail might be avoided, and the patient cured by the removal of the soft parts into which it had penetrated. He dwelt on the two following points of practice, on which he says the success of the method of operating depended; 1st, the ablation of the tissues must extend from the end of the toe, to within two lines of the

point where the skin ceases to cover the posterior point of the nail: without this condition the cicatrix draws the tissues forward against the nail, which may again penctrate into them; 2nd, the wound extends in a great measure on the very abundant cellular tissue, which constitutes the fatty cushion that surrounds the toe; this wound has an extraordinary tendency to granulate, so that if great care be not taken, in some days the development of fleshy granulations will more than replace the volume of tissues that has been removed; and there will necessarily be a relapse. They must be frequently cauterized with melted nitrate of silver, and they should be touched with it, from the second or third day after the operation; this it is true will retard the cicatrization, but an adherent cicatrix will be obtained, without any elevation, and which the nail will cover, instead of penetrating into it. This patient is perfectly cured; the cure has continued for a month.—*Gaz. des Hop.*

ACADEMIE DES SCIENCES.

New Remedy for Intermitting Fever.

An extract of a letter was read from M. Adam* de Bauve to M. Bory de St. Vincent, on the intermittent fevers of tropical countries.

This traveller, who has returned from a long excursion in the interior of Guiana, suffered from an intermittent fever that resisted the febrifuges usually employed, and even the sulphate of quinine.

Dr. Warburg, a physician, cured him with a preparation, the composition of which he did not make known to M. de Bauve, which the doctor designated *fever drops;* the success of this remedy in the hospitals of British Guiana, as well as in several of the Antilles, and even in the United States of America, seems to leave no doubt of its efficacy. The inspector of the English hospitals has forwarded a report to his government on this subject, and he has no doubt but that a reward will be conferred on M. Warburg, for his disinterested care of the fever patients, who were almost all cured in a few days, when they followed his directions.

M. de Bauve, thinking that the French government would be equally disposed to recompense the discoverer, if the efficacy of his remedy was well established, transmitted a dozen bottles of fever drops to the Academy of Sciences, so that the efficacy of the new medicine might be fairly tested. MM. Double, Peltier, and Robiquet, are appointed to exhibit the remedy.

Birmingham Royal School of Medicine and Surgery.

His Majesty has been most graciously pleased to become the Patron of the Birmingham School of Medicine, and that it should be styled "The Royal School of Medicine and Surgery of Birmingham."

MEDICAL BOTANY.

PLATE XIII.—MENTHA PIPERITA.—(PEPPERMINT.)

Off.—The plant.

Mentha Piperita. Lond. *Herba.* Ed. Dub.

This species of mint is perennial, and a native of Britain, where it is cultivated in very great quantities, for the sake of its essential oil. It flowers in August and September.

The leaves have a strong, rather agreeable smell, and a pungent, aromatic taste, somewhat resembling that of pepper, and accompanied with a peculiar sensation of coldness.

Its predominant constituents are essential oil and camphor, both of which rise in distillation, and are combined in what is called oil of peppermint.

Med. use.—Peppermint is principally used as a carminative and antispasmodic. The distilled water is a domestic remedy for flatulent colic, and the essential oil is often given with advantage, in doses of a few drops, in cramps of the stomach.

To the Editor of the London Medical and Surgical Journal.

Sir—Your attack upon me is unjust and entirely *ex parte*. Immediately on my return to town I shall lay every matter connected with my preparing the form of sarsaparilla recommended by the Medico-Botanical Society, the letters approving of the same, and the series of observations, in Dr. Hancock's hand-writing, before the public, and his memoranda for pecuniary assistance.

I am, Sir,

Your obedient Servant,

W. Bateman.

Birmingham, 16th Feb. 1836.

Our correspondent ought to have post-paid his letter, which may be important to him, but is not so to us.

BOOKS.

On Insanity, its Nature, Causes, and Cure. By Wm. B. Neville, Esq. 8vo., pp. 192.

Observations on the Uncertainty of the Signs of Murder of Newborn Infants. By Wm. Hunter, M.D. With Notes, by a Physician. Third Edition. London: 1836.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

Mentha Piperita

London: G. Henderson, 2 Old Bailey.

THE MANCHESTER ROYAL INFIRMARY

London Medical and Surgical Journal.

No. 5. SATURDAY, FEBRUARY 27. Vol. I.—(1836).

CLINICAL LECTURE, ON A CASE OF PLEURO-PNEUMONIA.

By PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Fatal Case of Pleuro-pneumonia—Sectio Cadaveris—Clinical Remarks on Pleuro-pneumonia—Its Pathology—Auscultatory Signs—Treatment by Blood-letting—Tartarized Antimony—Calomel and Opium—Counter-irritants—Stimulants.

Gentlemen—The subject of my present lecture is a case of pleuro-pneumonia, the history of which deserves your attention.

Richard Brackin, aged 42, admitted December 17th, 1835, farrier, of sallow complexion, and intemperate habits. He is, owing to the nature of his business, much exposed to sudden transitions from heat to cold, and has, in consequence, been much troubled with coughs.

About five years ago, he received a kick from a horse, which broke five of his ribs on his right side; since this accident he has been much troubled with dyspnœa. On Tuesday morning (three days ago), owing to having slept in a damp bed, he felt, for the first time, a severe stabbing pain, shooting from the left side to the right shoulder, which is greatly increased by coughing, and making a deep inspiration; he also complains of a sensation of great tightness across the chest, which he compares to an iron hoop bound round him. His cough is attended by expectoration of a tenacious yellow mucus, streaked with blood. The countenance is pale and anxious, and covered with a copious perspiration. The respiration is short and hurried; the bowels are constipated; decubitus on the left side; the pulse is 120, labouring, and full. There is crepitant râle all over the left side of the chest; there is sibilant râle at the apices of both lungs. The sound, on percussion, is clear.

Mr. Taylor ordered him to be bled to fainting.

℞. Hydr. submur. gr. x. statim sumend. et post hor. quatuor repetend. calomel, gr. v., 4ta quaque hora.
Appl. empl. lyttæ permagnum pectori.

He passed a very restless night; he was bled to ℥ xxiv. The blood is very much cupped and buffed. The sounds, on respiration, are the same as yesterday.

Rep. V. S. ad ℥ xij.

℞. Morph. mur. gr. ss, statim post V. S. sumend. et rep. si opus sit.
Rep. calomel 3tia quaque hora.
Ung. hydr. ℥j, cruribus infricend. 3tia quaque hora.

18th. One o'clock, P.M.—He is much the same; the pulse is 126, and not so labouring.

Rep. ung. hydr.
Appl. emp. lyttæ permagnum pectori.

℞. Ammoniæ carbonatis, gr. v.
Misturæ amygd. amar. ℥ iss. cap inter dos. calomel.

19th. He passed a better night; the pulse is a little easier; the respiratory murmur is exceedingly feeble all over the left lung; on the right there are the sibilant and subcrepitant râles. The impulse of the heart is very great; the sound, on percussion, is dull on the left side, and clear on the right. The sputa are more frothy than they were yesterday, very tenacious, and of an orange-colour. The pulse is 126, small, and compressible.

One o'clock, P.M. — Auge calomel ad gr. viij. Adde sing. dos. mist. ammoniaci ℥ j. Allow him to have half-a-pint of weak beef tea daily, and a wine-glass full of white wine whey every fifth hour. He died this evening at seven o'clock.

Sectio cadaveris, 44 hours after death.—The body was well-proportioned and muscular; the head was not examined.

The *Chest* was very largely developed, and ample in every respect; it contained several pints of fluid. The pleura costalis, particularly on the right side, was very strongly adherent; but these adhesions had evidently existed a long time. There was sero-purulent effusion into the sac, and

much coagulable lymph thrown out on the pleura costalis on the left side.

Lungs.—The left lung was hepatized, except at its apex, where it was emphysematous. The right lung was gorged with blood, but, in other respects, it appeared healthy. The trachea and bronchial tubes were filled with frothy mucus, and the mucous membrane was redder than natural.

The *Heart* was large and flabby, especially the left auricle; there were a few cartilaginous points on the semilunar valves.

The *Liver* was gorged with blood, and a little softened, but it was of the natural size; the spleen was rather smaller than usual, and soft. The kidneys were healthy, except that the cortical substance was very dark-coloured. The intestines were soft, and so easily to be torn, that the mucous membrane was readily separated, and it was redder than natural.

Clinical Remarks by Professor Thomson.

This, gentlemen, was a case of pleuro-pneumonia; that is, of inflammation extending from the bronchial tubes, in which it began, to the pleura. The seat of real pneumonia is the capillary vessels of the bronchial system, extending to the tissues around them; and in these the granulations that form the hepatization which often succeeds, and was the result of a former attack in our patient, is produced. It does not always follow that the mucous membrane is highly inflamed, although it is generally involved in the diseased action of the pulmonary arteries; and, on the same account, pneumonia may exist to a fatal degree, and the pleura not be involved in it, at least to any considerable extent. In every instance when it occurs, the false membrane seen in this case is found, and a sero-purulent effusion takes place into the serous sac, as was evident in our patient.

The cause of the inflammation of the case before us might have existed without the disease running on to the extent which it did, had both sides of the thorax been in a healthy condition; but as one side, that which was healthy, was not adequate to the return of the whole blood quick enough to the heart in the state of congestion produced by the exciting cause of the disease, inflammation was necessarily set up. The congestion, in our case, was obvious, not only in the lung, but in the liver, and also in the condition of the heart. In almost every instance of pneumonic inflammation, this congestive state of the organ precedes that of the irritative state. In our patient this congestive state was the result of damp applied to the surface; and the reaction which followed and terminated in inflammation, was a natural effort of the constitution to overcome that congestion, and restore the balance of the circulation.

The advanced stage of the disease, when the patient was brought into the hospital, prevented much being done, that could authorize a favourable prognosis; and left no opportunity of pointing out the physical signs of the pneumonic inflammation before its extension to the pleura.

In the earliest stages of pneumonia, the sound, on auscultation, is that which has been named *crepitant rhonchus*, and that confined to a small space; as the inflammation advances, it extends over the entire lung. Its usual primary seat is either below the axilla—the inferior margin of the pectoral muscle—or the lower edge of the scapula; at first it accompanies the ordinary respiratory murmur, which is still evident. As the disease advances, the crepitation diminishes, and *puerile respiration* becomes evident in the part. During the act of coughing, when the lungs are much gorged, that peculiar resonance of the voice, named broncophony, in which the voice seems as if it came to the end of the stethoscope, through little tubes, is very conspicuous; and, accompanying this sound, we occasionally find a mucus rhonchus, or gurgling.

When the lungs are consolidated in pneumonia, either by effused lymph, or other means, bronchial respiration—that is, a sound as if the breath were blown through a crow-quill, and broncophony are apt to occur, and sometimes exist in one part, and crepitation still exist in another part, in which we may conclude there is a growing incapacity of the bronchial cells to admit the due proportion of air, and condensation has already began.

When small crepitation exists alone, we may suspect inflammation in the smaller bronchial tubes, but in a degree yet easily remedied.

If we had endeavoured to obtain information of the lungs by auscultation, after our patient came into the hospital, we should have heard but very little crepitant rhonchus, owing to the sero-purulent effusion that covered a great portion of the lungs, and we should have found percussion dull not only over the hepatized lung, but over the other, as far as the fluid reached. On the consolidated side also, when the fluid existed, we should have found what is called ægophony—that is, the voice heard through the stethoscope appears shrill and squeaking, a circumstance that always indicates the presence of effused fluid, in a thin layer in the pleural sac. This sound is best heard between the scapulæ. In our case, on one side the crepitant rhonchus would have continued to be more or less evident; on the other, it would not have been heard at all. The advantages, therefore, of the use of the stethoscope in the early stage of pleuro-pneumonia are very great; but in the very advanced stage of the disease when it came under our notice, in this instance, it requires no aid of auscultation to

enable us to pronounce a decided and correct prognosis.

With respect to this, the character of the expectoration, which was of a dirty brown colour and fœtid odour, was sufficient to point out the threatened hasty approach of the fatal issue. But added to this, the livid hue of the body, and bloated appearance of the countenance, there could be only one opinion as to the event that must follow.

With regard to the treatment. The only time for proper management of the case was lost, by the existence of the disease for three days previous to the admission of the patient into the hospital.

Blood-letting, our sheet-anchor in such cases, does little after the first twelve hours have passed. In the early stage, when carried to deliquum, one blood-letting *may* save the patient; after that time, the result of the use of the lancet is always problematical. If the crepitant rhonchus be on the decline, blood-letting may even hurry on the fatal issue. In our case, it was both evident and extensive. In the early stage the bleeding may be repeated in two or three hours; but when it has advanced, and even when the pulsations of the heart are violent, it does not always relieve, although it is in such a case clearly indicated: unless we suspect hypertrophy of the heart, and when there is a weak pulse, in which cases it should not be repeated. The complications, the old hepatization in our patient, was most unfortunate in every respect; nor could more have been done by local blood-letting.

Besides blood-letting in the early stage of pneumonia, and frequently superseding the use of it, is the tartarized antimony; it operates upon the whole surface of the mucous membrane of the intestinal canal as an extensive counter-irritant; and it is owing to this sub-acute inflammatory action which prevents the nausea occurring, from the absorbing power of the surface being diminished by this degree of excitement upon it. In our case, tartarized antimony would have been completely useless, from the long continuance of the disease and the late period of his admission; and the first vomiting or two which it would have been caused, would have been productive of great harm rather than good. Calomel and opium are our next remedies, and their influence often is very beneficial: the latter soothes the morbid irritability of the system; it allays pain, and aids the absorption of the calomel into the system; in the present case, the calomel was endeavoured to be carried into the system as rapidly as possible; it was given frequently, and the inunction of the blue ointment was resorted to; but, from the strong inflammatory action going on, no influence of the mercury could be observed: indeed, the first beneficial appearance is the calomel displaying its effects upon the habit; when these shall have been observed, then one can with some degree of certainty pronounce a favourable prognosis; but if no beneficial effects be produced, our prognosis may be as decidedly of an unfavourable character. With regard to the use of counter-irritants, blisters are preferable to other counter-irritants, on account of the rapid manner in which they act; no other counter-irritant of slower action could possibly have been of any avail: in our patient, blisters produced little or no effect; two were applied, but neither of them rose well. With regard to stimulants, they can only prove serviceable when, from the symptoms, there is reason to suspect that effusion into the bronchial tubes has taken place, and that the respiratory function cannot be carried on unless means be taken to effect this. Ammonia operates by stimulating the capillary system in a certain degree, and also by raising the general powers of the habit by acting upon the nervous system, and not upon the heart and arteries—enabling the action of coughing to be carried on, followed by copious expectoration, and allowing the air to pass into the air-cells, and produce the necessary change on the blood, and sustaining the powers of the habit until resolution take place: in our patient it was used without any beneficial results; indeed, as I have before said, the advanced stage of the disease on the admission of our poor patient into the hospital, rendered all treatment hopeless.

Professor Thomson added that he should next bring an interesting case before their notice, in which the treatment was highly satisfactory—one of ascites.

SATURNINE COLIC.

A young woman, aged twenty years, a comb-polisher, obliged to handle continually red oxide of lead, had experienced, during the lapse of a year, four attacks of saturnine colic.

The patient presented, when admitted, the characteristic symptoms of the above disease. Severe pains of the abdominal region, increased at intervals, and accompanied with cramps, trembling of the limbs, restlessness, watchfulness, agitation; and, at the same time, nausea, vomiting, loss of appetite, constipation.

Treatment.—Purgatives and opiates were the remedies employed. From twenty grains to one drachm of jalap was ordered daily. The first doses only caused vomiting, but in the dose of a drachm an abundant dejection followed; and from that period the pain was, in a great measure, dissipated, and the watchfulness ceased. As the digestive tube seemed to suffer from the action of purgatives, the resin was substituted in place of the powdered jalap, and in the same dose. The motions then became more frequent and all the symptoms completely disappeared.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(Illustrated with Numerous Plates).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE IV.

History of Male Obstetricians (continued).

In 1598, Guillemeau, the disciple of Paré, published his work on obstetrics, (Dela Grossesse et de l'Accouchemens des Femmes, Paris, 1598,) and detailed the doctrines of Courtin, who was, perhaps, the first French lecturer on obstetricy. This author recommended version in natural parturition, so far as the presentation of the infant is concerned, and also in cases of convulsions. He pierced the placenta, when this organ was attached over the orifice of the womb, and in cases of severe hemorrhage, he punctured the membranes. He was strongly averse to the employment of the crotchet before the death of the fœtus, and was an advocate for confining the practice of midwifery as much as possible to midwives. Science was still encumbered with all the ancient prejudices collected by Avicenna, some of which were ridiculed by Guillemeau, such as predicting the number of future infants, by the number of knots on the navel cord.

The next writer was St. Germain, who published a small treatise for midwives, in which he gravely advised them to place a small piece of ice in the hand of the fœtus, when it was the presenting part, with a view of inducing the infant to withdraw it into the uterus*.

In 1651, the celebrated work of the illustrious Harvey was published, on the *Generation of Animals*, Exercitationes de Generatione Animalium. *Quibus accedunt quædam*, De partu : de Membranis et Humoribus Uteri : *et De Conceptione*, autore Guilielmo Harveo Anglo, *in Collegio Medicorum, Londinensium Anatomes et Chirurgiæ Professore.* Amstelodami, apud Joannem Janssonum †.

This work had employed almost as large a portion of his time as his immortal exercitations on the circulation of the blood, 1628‡. It is related of Harvey, that while he was warden of Merton College, Oxford, from 1645 to 1648, he was in the habit of visiting George Bathurst, B.D. at Trinity College, who had a hen that used to hatch eggs in his chambers, which he daily opened to see the progress and mode of generation. Harvey withdrew from the world about the year 1649, and passed his retirement in a mansion which he possessed at Combe, in Surrey. In this seclusion he was found, in the year 1651, by his intimate friend, Dr. Ent ; the result of whose visit was the publication of his second great work. Ent relates a philosophical conversation between them, that gave rise to the mention of his papers on generation, which the public had so long expected. After some modest altercation, Harvey brought them to him, with permission either to publish them imme-

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* Eschole des Sage-femmes, &c. Paris, 1650.

† Lives of British Physicians, Family Library, 1830.

‡ The first promulgation of the discovery of the circulation of the blood, was in 1616 or 1619. The propositions upon which it was founded, are referred to in the index of his MS. in the British Museum, April 8th, 1616. *op. cit.*

diately, or to suppress them till some future time. "I went from him," says Ent, "like another Jason, in possession of the golden fleece, and when I came home and perused the pieces singly, I was amazed that so vast a treasure should have been so long hidden," &c.

The work obtained by Dr. Ent consists of a detail of facts and observations in elucidation and in disproof of some of the conclusions of Aristotle and Fabricius ab Aquapendente, who was the preceptor of Harvey, and contains seventy-two exercitations in favour of oval generation, with an appendix, describing human generation. This splendid work was not published the author, on account of his advanced age, being seventy-one, but by his friend. It does not easily admit of an analysis; but I shall attempt one, as this celebrated production has been too lightly passed over by subsequent obstetric writers, and as it sheds additional lustre on the memory of its author*. The preface commences to the following effect: "As many have requested me, and some have even importuned me, I hope I shall not be considered ungrateful, candid reader, if I shall expose those facts on the *Generation of Animals*, which were observed on anatomical dissection, and also those that have been noticed by authors, whether philosophic or medical, in the following exercitations, for the benefit and utility of those who study truth. All physicians have followed Galen, and teach that the fœtus is procreated from a mixture of the seeds of man and woman in coition, and that the fœtus will resemble the one or the other, as the seed of the one or the other predominates.

"But Aristotle, the most diligent investigator of nature, affirms, that the principles of generation are male and female; that the latter contributes the material, the former the form; and he also asserts, that the first particle of the fœtus, the heart, the vital principle, is formed immediately after coition, by the menstruous blood in the womb.

"But it will readily appear that these conclusions are rash and unfounded, as they vanish like a shadow before the light of anatomy; nor do they require a laborious refutation, when I am convinced by ocular demonstration, afforded by autopsy, of the contrary; and it is also easy to understand how unsatisfactory and untenable it is to examine these inquiries without dissection, to draw conclusions from the commentaries of others, and more especially as the book of nature is so accessible and open to us.

"I therefore wish to submit to the world, in my *Exercitations*, all that I have seen concerning the generation of animals, not only that posterity may discern positive and perspicuous truth, but also, and indeed more especially, that, in exposing the method I have pursued, I may, unless I am very much deceived, propose a new and more certain path to those engaged in the study of the sciences.

"Although the path may be new and arduous, in examining nature rather from things themselves than by turning over works and adopting the conclusions of philosophers, it will be acknowledged as better exposing the arcana of natural philosophy, and leading less into error."

The author further observes, that no one ought to be deterred from the investigation by the labour he has to sustain; and that he ought not to be content with the conclusions of the ancient philosophers many of which, the later elucidations of science had proved to be erroneous, more especially as regarded anatomy and physiology. He then proceeds to describe the mode and order of acquiring knowledge, and expatiates on the precepts of ancient philosophers; and concludes by observing, that he does not wish the reader

* It is erroneously stated, that this work was published in 1603, which would make it earlier than the great work on the circulation of the blood.

to believe any thing he has stated concerning the generation of animals, unless on the evidence of ocular demonstration. In investigating animal generation, he was of opinion that we should examine the function as regards parents and progeny. "Thus, before an adult became a man, he was a boy, for he increased into a man from a boy; before he was a boy, he was an infant; before an infant, he was an embryo. But we ought also to inquire farther, what he was in the maternal uterus, before he was an embryo; whether he was a fœtus; whether three drops of fluid, or whether a rude and indigested mass, or a conception, or a coagulum of the mixed seeds, or what else? In the same way, before a cock or hen is perfected, that is capable of generation, it was a pullet—it was seen as an ovum, embryo, and fœtus." After some observations, the author proceeds thus: "We shall therefore expound, according to the method we have proposed to ourselves, first in the egg, then also in the other conceptions of various animals, what is first, and what is afterwards ordained by the consummate power of nature, with an inimitable providence and intelligence, and an admirable order; we shall also describe the primitive female and male materials in the order and economy of generation, which were observed by us, so that we may understand something from their operations, of every faculty of the formative and vegetative life, of the nature of life, of the membranes, organs, and of their functions.

"This could not be accomplished in all animals, as there was not a sufficient supply of some, and because the economy of others escaped the power of our vision. It is sufficient that we examine those genera best known, and to which, and to the normal state of which, the rudiments of the rest of animals may be reduced. We therefore selected those which afforded us the most indubitable evidence in experimenting; namely, the larger and more perfect animals, which were most easily procured. The phenomena are most distinct in the larger and most perfect animals. Of these, in oviparous animals, are, the hen, the goose, the pigeon, the duck, fishes, crustacea, testacea, frogs, serpents; in insects, bees, flies, butterflies, and silk-worms; in viviparous, sheep, goats, bitches, cats, heifers, mares, &c. and above others, the most perfect of all animals—man himself.

"These being examined and known, the abstruse nature of vegetative life ought to be contemplated, and the mode, order, and causes of generation in all animals may be understood. All other animals, as well as those above-named, may be placed in their respective species and genera, are procreated by the same kind of generation, or at least can be referred to it by analogy. Divine and perfect nature is consonant to herself, and the generative or any other function is the same, in the same or diverse, in different species of animals." The author then requests his readers not to object to his novel method of commencing his investigations, by examining the gallinaceous egg; and by opposing and refuting some of the doctrines of his predecessors.

Such are the leading points in his preface. He then commences his work, and arranges his facts in the subsequent order; 1. Exercitation. Why is the exordium deduced from the gallinaceous egg? The answer is on account of the reasons already assigned in the preface, and because it affords certain results, which, as they are known to us, they elucidate the generation of many other animals. "Moreover, eggs are always at hand; they are to be had at every time and place, and it is easy to observe from them, what are the clear and distinct rudiments of generation, what nature accomplishes in the progress of formation, and with what an admirable providence she governs all things in this function." The author advances his axiom, now universally received, that all animals and plants are reproduced by oval generation—*omnia ex ovo*; and promises to establish it on incontrovertible evidence, which he will adduce in the course of his work. He also proposes to refute every other theory of generation of former physiologists.

In his second exercitation, he describes the "site of generation;" and in his third, fourth, fifth, sixth, seventh, and eighth, he gives a minute account of the generative organs of birds. These sections abound with such graphic descriptions, as not to have been excelled by more recent comparative anatomists. He describes the ovaries, uteri, infundibula, testes and penis of not only birds, but fishes, frogs, crustaceous, cochleareous, oviparous, and viviparous animals. He next enumerates those animals which are deprived of a penis. The anatomy of the genital organs of horses, dogs, cats, &c. follow next, and the author contends, with the ancient poets, that spring is the season of reproduction.

"Vere tument terræ, et genitalia semina poscunt.
Tum pater omnipotens fœcundis imbribus æther
Conjugis in gremium lætæ descendit, et omnes
Magnus alit, magno commistus corpore, fœtus.
Avia tum resonant avibus virgulta canorus;
Et venerem certis repetunt armenta diebus."

VIRG. *Georg.* 2.

Aristotle observed that birds labour under diseases, and sometimes died, unless they had progeny—*aves morbo laborare, et interire nisi pariant.* Harvey commented upon this, and observed that he had found the ovum imperfect and corrupt after a premature death. And in proportion as birds are more salacious, so they will be more fecund without the male, and conceive eggs without him. So it is with other animals; and in the human female we observe hysteria and nervous diseases after the age of puberty, or she is seized with nymphomania.

The seventh and eighth exercitations are occupied with the description of the abdominal and pelvic organs of birds.

The structure and functions of the generative organs, having been described, except generation, the author treats it as follows:—

"Omnia siquidem animalia, cupidinis æstro percita, ferociunt; et nisi se invicem fruantur, plurimum tandem à consuetis moribus recedunt. Ita mulieres quædam insaniunt præ desiderio consuescendi cum viris; et in nonnullis usque adeo sævit hoc malum, ut vel veneficio afflatæ, vel sideratæ aut à cacodæmone obsessæ judicentur. Idque sæpius contingeret, nisi proba educatio, bonæ famæ reverentia, et innata huic sexui verecundia, inordinatos hosce animi impetus compescerent."

In describing inferior animals, our author well observes, that they are incited to copulation by sight, hearing, and smell, and he illustrates his position by various examples.

From the ninth to the sixty-first exercitation, the subject of ovology and embryology is most minutely described; and the sixty-second is on the conclusion—the ovum is the common origin of all animals—*omnia ex ovo.*

The remaining part of the work is devoted to the elucidation of generation in viviparous animals, and commences with the sixty-third, and terminates with the seventy-second exercitation. This includes the author's observations and experiments on deer and fallow deer, which he was allowed to dissect by Charles I.

The conclusion of the illustrious Harvey, that all generation was from an ovum, is now universally admitted, and was a splendid discovery. His laborious and patient investigations on the generation of animals, were undertaken to elucidate the function in man; and his conclusions on this subject are appended to his exercitations, and require a separate notice.

The sections on human generation are in the following order. Harvey observes, that Parturition is a consecutive part of generation, for which due preparation is made by nature, partly in the situation and position of the fœtus,

which is rendered best adapted to its egress. The position of the fœtus is not always the same during utero-gestation, for as it is swimming in water and moving itself in various directions, it may become entangled in the umbilical cord, and irritated. It is certain that all animals, when quiescent or asleep, bend their limbs, and assume an oval or conglobate form. So it is with the fœtus, in utero; its limbs are flexed towards the abdomen, its legs crossed, and its arms are in different positions. Its head is bent towards the knees, and the spine is excurvated. At the approach of parturition, the head descends towards the orifice of the womb. Aristotle has observed, that all animals are naturally born head foremost, some oblique, or by the feet, which is contrary to nature: *omnia animalia naturaliter in caput exeunt; obliqua autem, vel in pedes, contra naturam**.

The mechanism of parturition is next described with the greatest accuracy; and it is maintained, that the fœtus is an active agent in the process; "for otherwise, how could it be born during coma or hysteria, or even after the death of the mother? It is also certain that birds break the shells in which they are confined, with their beaks. Moreover, labours are tedious when the infant is dead."

The duration of pregnancy varies, and numerous illustrations are adduced from the inferior animals. Some infants are born at the seventh, others at the tenth month. Our author quotes Pliny and Aristotle, to prove that there are certain seasons for copulation and parturition in all animals, except man, who propagates and is born at all seasons. Examples of protracted pregnancy to the fifteenth month, are adduced from the works of Valesius and Spigelius; and the observation of Aristotle is quoted, that infants born before the seventh month of utero-gestation, seldom survive, which is now the universally received opinion †. Some jurisconsults limit the pregnancy to the tenth month, and it is often feigned to extort money, to escape punishment, and for other causes.

Aristotle observed, that in abortions of the third or fourth month, the dead fœtus might remain in the womb ten or twelve months, and superfœtation take place‡. Harvey met with cases of superfœtation, soon after the third or fourth month. He attended a servant, who was illegitimately pregnant, and who was delivered in the month of September. In the following December, she brought forth a second infant. Aristotle stated that a woman was delivered at the seventh month, and in two months afterwards, brought forth twins, which survived, the first infant having perished; some women pregnant of twins, have aborted of one, and carried the other to the full time. Dr. Harvey describes a case of abortion, after which conception happened, and delivery occurred at the full period, but was followed by the expulsion of the bones of the first fœtus—the spine, thigh-bones, &c. He knew another young lady, the daughter of a physician, who quickened at the fourteenth week; preparations were made for her delivery, but the motion of the infant ceased, the abdomen diminished, no delivery took place, and she became sterile. He describes another case of suspected pregnancy, which terminated in wind and fat, "*donec tandem spes omnis in flatum et pinguidenem facesseret.*"

Women and obstetricians are often unable to detect the presence of utero-gestation. The signs are not to be depended upon, especially before the seventh or after the eleventh month. In general, however, the period of pregnancy is nine months, and prudent women compute, from the example of the mother of our Saviour, from the twenty-fifth of March, until the twenty-fifth of December, ten lunar, or nine calendar months.

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* Hist. An. l. 7, c. 8. † Op. cit. l. 7, c. 4. ‡ Ib.

The next observations are on the opinions of Fabricius ab Aquapendente, regarding the mechanism of parturition, in which some judicious censures are passed on those obstetricians who attempt to dilate the external genital canal during parturition. In such cases, nature would do much better than a meddlesome practitioner, and the slower the parturition, in general the safer.

Fabricius contended, the abdominal muscles and diaphragm had much influence in expediting parturition; but Harvey denies that this is always the fact. He narrates the case of a young woman who had fainted during labour, and appeared comatose, from which no remedy could rouse her. "I was called to her," says Harvey, "and having ordered clysters, with other appropriate means, without success, the nostrils were irritated with a feather, which did not excite sneezing, or remove the coma, but induced a kind of convulsion in her upper extremities, which descended over the body to the lower. As often as this stimulus was applied, parturient action was promoted, and though the coma continued, the infant was born alive and vigorous. We also observe in inferior animals, as the bitch, sheep, and heifer, that the whole body is exerted as well as the abdomen and uterus. In transverse presentations, delivery by the feet is to be practised, and thus we adapt a cone or wedge to the uterine orifice, and gradually dilate it.

We should also remember, that birds break the shells that cover them, and insects and fishes the membranes that envelop them, and are born spontaneously. Moreover, the records of medicine afford examples of infants born after the death of the mother. "I knew a woman," observes our author, "whose genital aperture and vagina were so completely closed after conception, but which were dilated during labour, the infant born, and the mother cured by proper remedies"*. In another case the uterus hung between the thighs, and was replaced by Harvey, who ordered the woman to remain in bed. After some time, the displacement returned worse than before, and the tumour was as large as the scrotum of a bull, and finally acquired the size of a man's head. Our author feared it would become scirrhus, and require a ligature or excision, but on the following night after he saw the patient, a perfectly formed dead infant, about the length of a span was expelled, and the following day it was brought to him, and he afterwards shewed it to many of his friends. These and many other cases prove that he was a practical obstetrician.

The dilatation of the womb during parturition, and its contraction, as well as that of the vagina and genital fissure immediately afterwards, are a part of the functions, and are not more astonishing than the state of the male organs during and after the act of reproduction—"penem virilem in coitu valde tensum et durem, peracto negotio statim languescere et emolliri." It is more astonishing how the uterus dilates, enlarges, and thickens, after conception, and during pregnancy; and how in a few days after delivery it returns to its ordinary size. But this is not worthy of more admiration than all the works of nature; all are regulated by Divine Providence, and the power of nature is evident in all.

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* There are some remarkable cases of this kind narrated in my *Manual of Medical Jurisprudence and State Medicine*, 2nd edit. 1836.

A Few Facts, Preliminary to a Philosophical Examination of Negro Intellect. By Ed. Binns, M.D., F.S.A., Scot. Præses Soc. Plin. Nat., Soc. Societ. Hunt., &c. &c.

PASSING over all the theories upon the colour, origin, and nature of the negroes, as idle and useless when opposed to facts—the presumed identity of the Egyptians with the present Copts, and the real negro—the fallacy of making him on the one hand a mere remove from the monkey, and on the other, the improbability of believing him to

have been the original stock, whence the Caucasian, Mongolian, and all other varieties of the great human family have descended—we proceed to investigate some of the causes which have hitherto prevented the African from distinguishing himself in the ranks of literary men.

Admitting in common with all physiologists, the difficulty and perplexity attendant upon the classification of the human race, and dissenting from every system which has been presented, whether by Buffon, Blumenbach, Lawrence, or Pritchard, it will not after this statement of our opinion of the obscurity of the subject, be expected that we shall offer anything either to amend, or negative the theories already advanced. But, in place of wasting our labour and time, in refuting arguments that carry refutation even in their very data, or of advancing new doctrines which would not be founded on truth, we shall make such use of the facts collected by Buffon, Blumenbach, or Pritchard, as will aid us in the investigation, without pledging ourselves to support or oppose the spread of their systems.

Pritchard makes the negro the origin whence all varieties of the human race have sprung. Blumenbach, on the other hand, makes him a vitiated variety of the Caucasian or white man. These authors are men of great repute; but, we very much doubt the soundness of their judgment; for surely it is more consonant with reason and truth, to admit want of knowledge, than by torturing ingenuity to support illogical and improbable theories—expose ignorance. Blumenbach, Pritchard, and Buffon had not a sufficient number of facts to authorize them to draw conclusions; nor had Lawrence, nor have we; therefore, why should learning, and what is more valuable, time, be squandered on elaborate disquisitions, and intricate sentences, dragged in to substantiate a position which is unsound, and which is proved so of itself, as the weakness of a nation is discovered by the number of auxiliaries in its ranks? We shall confine ourselves to facts, leaving the reader to draw his own conclusions.

With regard to the capability or capacity of the negro race for improvement, we are still in the dark. We have seen no data to argue from. He has had no opportunity as yet, either in his own natural country, Africa, or his forcedly-adopted abode, America, of displaying genius, or acquiring knowledge. Africa has been, from the earliest ages, the great slave mart, the region of ignorance and violence, the theatre of intestine wars, and murderous dramas. Passion and revenge have usurped the place of justice and mercy, and the minds of the people, pre-occupied with the schemes of mutual reprisal, have had no time to settle down into the sober amenities of life. For the most part leading a wandering life, and removed from the necessity of great exertion by the munificence of Providence, and the fertility of the soil, the Africans busy themselves with no thoughts of the future, content to enjoy the present. Hence famines are almost perennial in Africa, one portion of it being, at one time or other of the year, subject to scarcity and scantiness of supply. And the want of food—of the absolute means of supplying the body with the pabula necessary to preserve it in that state best consonant with health; and requisite for the organs to perform their stated functions, is without doubt the great cause of the demoralization, even of the most civilized people. Famine too is generally accompanied or succeeded by disease; and in the histories of famines and plagues, the philosopher finds little to entitle man to the proud pre-eminence which he arrogates to himself. Animals of the brute creation, when pressed by hunger, frequently devour their young; and among the ancient Jews, as we read in Samuel, and in the recent accounts of the plague in India, not to say anything of the same circumstance occurring in Europe, even women have been known to kill and eat their own children.

These facts, then, shew the dreadful degradation to which the human race, when pressed by hunger, may be reduced. This and continual zeal, persevered in to supply the constant demand for slaves, depress and brutalize the negro mind; and hence his character, fierce, cunning, treacherous, bloodthirsty, and fickle in an uncivilized condition, but certainly not so to the same extent, when partially reclaimed, as exemplified in the case of the apprentices of Jamaica.

It may be said here, the very existence of a slave mart, known from the earliest ages, and the custom of eating human flesh to have obtained in Africa, divide the negro by insurmountable barriers from the European, and prove his repugnance to, if not natural incapacity for education. It is true that at the first glance, such revolting circumstances in the manners and customs of a people, dispose us to consider them in no way removed from the brutes of the field. But it would be neither honourable to us, nor corroborative of the high rank in the arts and sciences, to which we lay claim, to dismiss the case here. It is true, and without a shadow of doubt, that Africa has been in past ages, and is at the present time, a slave mart, as it is equally true, that there are anthropophagous tribes among her inhabitants. But if it can be shown, that all ancient nations traded largely in the blood and sinews of their fellow men, from the Jews, the chosen people of God, to the Athenians, the most favoured in intellect, the great objection to the American on this score is removed, without obliging us to blush for

ourselves, in recalling the painful fact, that until it suited the policy of the most civilized people on earth, they were the principal slave purchasers, slave carriers, and consequently slave makers. On the subject of men-eating, again it can be shewn without any unnecessary application to books for authority, that many ancient nations, the descendants of whom are now remarkable for civilization and humanity, were anthropophagi. Voltaire says, the Jews were anthropophagous, and corroborates this startling assertion by a quotation from Ezekiel. The ancient Cretans, the Scandinavians, Scythians, (Britons?) were all anthropophagous; but surely no one thinks of accusing the Hebrews, of this city, the inhabitants of Russia, Poland, Hungary, or the Norwegian, Swedes, and Danes, the (descendants of these ancient nations), of being anthropophagous. So much then for these objections.

In a state of slavery, no opportunity is afforded the negro of improving his intellect, therefore we cannot argue anything against negro intellect, because, few or no slaves have distinguished themselves. Hence we look upon all theories upon the subject, as futile and inconclusive. Exterior appearance, craniological development, physical peculiarities, and apparently a natural proneness to cruelty, are charges brought against him, and we confess we cannot deny them as a whole. But these charges do not prove his inability or natural repugnance to mental improvement. Civilization, food, custom, but above all, an early and long continued system of mental culture, produce extraordinary effects, and promote changes both in man and brute, to a degree almost incredible; and who knows what alternations may be produced in the negro character, by education? The elegant and fashionable female of London, would start back with horror and consternation—with loathing and disgust—could palingeneses of her ancient ancestors be presented to her. Would she not be shocked with the nude body of one of her sex; scarred, tatooed, and painted; the hair hanging wildly down her back, clotted, and greased, and disfigured with wode—holding up her new-born babe to be massacred by the father, or, enclosing it in a large wicker idol, devote it to the flames! Yet such were the dress and manners of the Britons, when Julius Cæsar landed at Dover, two thousand years ago. Then why may we not indulge in the hope, that the African may be also civilized, improved in physical characteristics, as well as enlarged in mental capacity, unlikely, and impossible as it appears at present? To shew that this desirable end—founded on a principle of justice, is not so far distant as some suppose, let us collect a few facts from the biographic notices of all the negroes, who as far as written testimony goes, have distinguished themselves.

I commence with Francis Williams, a negro, I believe born in Spanish Town, and educated at the expense of the Duke of Montagne, at the university of Cambridge, who like every liberal and well-informed man, was anxious to give the African an opportunity of a fair competition with his white brethren. Williams' parents were free, and being a boy of unusually bright parts, the Duke determined to make him the subject of an experiment, which he had long wished to institute, viz. whether or not it was possible by education to render the negro equal to the European, in mental acquirements. Francis, son of John and Dorothy Williams, free blacks, was accordingly sent to England, first to a grammar school, and then to Cambridge, where he made some progress in mathematics. Long, whom I blush to say, has insulted the memory of this man, and affected to despise his talents, writes: "During his abode in England, after finishing his education, it is said, (I know not with what truth) that he composed the well known ballad of 'Welcome, welcome, Brother Debtor,' &c. &c. But I have likewise heard the same attributed to a different author." On Williams's return to Jamaica, the Duke of Montagne endeavoured to procure him the post of Governor's Secretary, but the prejudices, perhaps policy, of Mr. Trelawney, then Governor, refused the appointment. Williams, consequently, highly educated, perhaps better than nine-tenths of the people of the island were at that time, with exalted ideas of the value of classical knowledge, contemned, despised, and trampled on, was compelled to seek the necessary means of existence in the exertion of his talents, and he opened a school in Spanish Town, where he taught reading, writing, Latin, and mathematics. We can very well conceive the number of scholars he must have had, by the fact that a hogshead of sugar in his time was considered to be infinitely more valuable than a score of Homers, or a tribe of Virgils; and that a puncheon of rum would have been preferred, we believe, to the fountain of Castalie itself. His success, therefore, could not have been great. While employed in the duties of tuition, he selected a negro pupil, who however, unfortunately, became deranged, and consequently little can be inferred from this example, of the capability of the negro intellect for improvement. Long, as he was then bound to do, from the principle he advocated that the negro was but a monkey erect (he should have said ape—for, according to Buffon, apes have no tails, baboons have short tails, and monkeys have long tails), endeavoured in every way to depreciate the talent and character of Williams, and in his anxiety to prove his argument, in the

quctation which he makes from Montesquieu, unfortunately for himself, and the people for whom he was writing, proves *too much;* and *ergo*, plunged himself into a dilemma, from which no sophistry can extricate him. He says that, considering the difference which climate may occasion, the experiment would have been more fairly tried upon a native African; that it was possible that the northern air imparted a tone to his organs of which they would not have been susceptible in a warm climate, and that Montesquieu will not allow there is any force or vigour of mind necessary for human action in hot climates; but, on the contrary, "there is no curiosity, no noble enterprise, no generous sentiment." If, then, this be true, it must hold equally good of all nations living near the equator, and must apply equally to those who constituted themselves judge and jury. Such unphilosophical and impertinent opinions do not deserve serious refutation, for the objection is easily answered by referring to the history of the Jews, Babylonians, Egyptians, Palmyrians, and even to the favourites of all classical and collegiate writers, the Athenians and Romans.

The characteristics of Williams are thus summed up by his by no means impartial biographer:--"In regard to the general character of the man, he was haughty, opinionated, looked down with sovereign contempt upon his fellow blacks, entertained the highest opinion of his own knowledge, treated his parents with much disdain, and behaved towards his children and his slaves with a severity bordering upon cruelty; he was fond of having great deference paid to him, and exacted it in the utmost degree from the negroes; he affected a singularity of dress, and particularly grave cast of countenance, to impress an idea of wisdom and learning; and, to second this view, he wore in common a huge wig, which made a very venerable figure."

Supposing Williams did look down with sovereign contempt upon his fellow blacks, which in every human probability he did, this is but the manifestation of that principle in human nature which is fond of exalting itself at the expense of its fellow creatures, and can be found also in Scaliger, the greatest literary puppy of his, or perhaps of any age, in Maupertius, Melancthon, or Luther; and for those who have enjoyed what are falsely called the blessings of a collegiate education, we need not cite the modern examples of the portly professors of Brazennose, or the still more aristocratic fellows of Corpus Christi. Learning, that is mere learning as opposed to science, is ever the fruitful cause of vanity and ostentation, and the proverbial self sufficiency of the village schoolmaster—

"With words of learned length and thundering sound
T'amaze the gazing rustics rang'd around"—

is too well known to require notice. It was then the vice of the craft—of the calling to which Williams belonged, and not to the nature of the African that we are to attribute what Long terms conduct "haughty and opinionated." The scholar here cannot avoid calling to mind and applying the anecdote of Cæsar and the laurel crown. His vanity was hurt that his baldness should appear—wigs were not then invented, and he petitioned the *senatus populusque Romanorum*, to wear a laurel crown, as a distinctive symbol of the great services he had rendered his country. The request was granted, and we are told Cæsar was more delighted with this permission—because it concealed the natural consequences of a debauched life, his baldness—than he had been with all the triumphs, and honours, and dignities that had been heaped upon him by a grateful nation. If, then, we detect the same weakness in Cæsar, as we find the unfriended Williams accused of, ought we not rather to ascribe this imperfection to humanity, and not to the individual?

The charge of his treating his parents with disdain, and behaving towards his children with severity, though of a more serious nature than the first, may be answered in the same manner as the first. Milton was not exempt from this vice; and the much admired author of "The Sentimental Journey," Laurence Sterne, preferred, as Lord Orford tells us, "a dead ass to a living mother." Shame! and double shame! be heaped upon the memory of that man, who, prejudiced and prejudging, should seek to blast the character of another, merely because he differed from him in colour and complexion! Williams defined himself as "a white man acting under a black skin," and endeavoured to prove logically that a negro was superior to a mulatto, or any other cast. Thus: "a simple white or a simple black complexion was respectively perfect; but a mulatto, being an heterogeneous medley of both, was imperfect, *ergo* inferior." This absurd syllogism may be classed among the the literary follies of the learned, and the enthusiastic admirers of the Aristotelian absurdities. Of the extent of Williams's literary attaintments, we have no sufficient means of judging, all that we know of his works now extant being the ballad alluded to, and a Latin ode, most unfairly and unjustly criticized and condemned by Long. The poem in question, which we are by no means inclined to place in the first, or perhaps the second class of literary excellencies, is decidedly above mediocrity. The charge of exalted panegyric in which it is written, made by Long, must be attributed to education, and the perusal of the works of Dryden, at that period very popular, whose dedications put human nature to the blush, and out-herod the apotheosiacal effusions of Virgil or Horace.

The next African, or descendant of an

African, with whose history we are acquainted, is that of Ignatius Loyola, a negro who was born on board a slave-ship, on its passage to Carthagena, where he was baptized by the name of Ignatius. His parents appeared to have died before he had attained boyhood, and being brought to England, was presented by his master to two sisters at Greenwich, who called him Sancho. While here he attracted the notice of the Duke of Montagne, whose Duchess subsequently took him into her service, where he assumed the office of butler. He contined in the service of the last Duke until his infirmities obliged him to retire, when he opened a shop at Greenwich in the grocery line. Here, at his leisure hours, he indulged his taste for music, literature, and painting. He wrote some pieces of poetry, and a dissertation on the theory of music. He died in 1780. (Watkins) Jekyll wrote a life of this extraordinary negro, and his letters, some of which have also been reprinted in a volume of the "Elegant Extracts," were published for the benefit of his family.

Mr. Thomas Fisher has furnished the author of "The History of the British Colonies" with the following very brief biographical notices of celebrated Africans, or descendants—for one or two of them are undoubtedly not negroes. Mr. Martin says, did time permit him, he could offer many additional illustrations. "The following are a few examples of African negroes who have been mathematicians, physicians, divines, philosophers, linguists, poets, generals, and merchants, all eminent in their attainments, energetic in enterprise, and honourable in character. Hannibal, a colonel in the Russian artillery, and Lislet, of the Isle of France (the latter of whom was named a corresponding member of the French Academy of Sciences, on account of his meteorological observations), prove the capacity of the negroes for the mathematical and physical sciences. Fuller, of Maryland, was an extraordinary instance of quickness of reckoning. Being asked in a company, for the purpose of trying his powers, how many seconds a person had lived, who was seventy years and some months old, he gave the answer in a minute and a half. On reckoning it up after him, a different result was obtained. "Have you not forgot the leap-year?" asked the negro. The omission was supplied, and the number then agreed with his answer. Jac. Eliza John Capitem, who was bought by a slave-dealer when eight years old, studied theology at Leyden, and published several sermons and poems. His *Dissertatio de Servitute Libertate Christianæ non contraria*, that is, Treatise of a Servitude (or bondage) not contrary to Christian Liberty, went through four editions very quickly. He was ordained in Amsterdam, and went to Elmina, on the Gold Coast, where it is believed he was murdered, or consented to return to the practices and opinions of his countrymen. In 1734, A. W. Arno, an African from the Coast of Guinea, took the degree of Doctor of Philosophy, at the University of Wirtemberg. Friedig, of Vienna, an African negro, was an excellent performer, both on the violin and violoncello; he was also a capital draftsman, and had made a very successful painting of himself. Ignatius Sancho, who was born on board a slave-ship on his passage from Guinea to the West Indies, and Gustavus Vaza, of the kingdom of Benin, both distinguished themselves as literary characters in this country (England). Toussaint Louverture, the negro general, and Christophe, the negro Emperor of Haiti, and his admiral, acquitted themselves with sufficient energy in a way to achieve the liberties of their country, which is still governed by negroes of African descent."

Before concluding, we must take the liberty of quoting from a letter addressed to us by Dr. Paul upon this subject; and we do so with great pleasure, because we were ignorant of the facts until he was kind enough to put us in possession of them; and again, because these facts, to a certain extent, support the opinion which we have endeavoured to establish throughout this paper. The gentleman whose name we take the liberty of mentioning, we hope will not consider that, in so doing, we trench at all upon the privacies of social life, or remove the veil which has so long concealed his accomplishments from the scientific world. We have ourselves had the pleasure of hearing Mr. Casseres play on the flute and piano in public, and never did the enrapturing sweetness of Nicholson, or the execution of Kolkbrenner (both of whom we have enjoyed the opportunity of hearing), astonish and delight us more; and in offering our testimony of admiration and respect to Mr. Casseres, we do so in the full and perfect hope, that such voluntary testimony of talent, so far as our feeble evidence will go, will not be misunderstood, or misinterpreted by the public, Mr. Casseres, or his friends, for we have never spoken one word to this gentleman in our life.

Dr. Paul says—"Casseres is master of every musical instrument. His ear is so fine, that, while leading a band, he will call out to the identical performer who plays a wrong note. He speaks, I think, five different languages, and all this without any collegiate or uncommon education. He is a native of Curacao. I have seen him at a concert play on the piano, flute, violin, and guitar, and all as *first*."

There is also another of our sable brethren at Kingston, whom it would be invidious to pass over when on the subject. I allude to Killick, the black baptist minis-

ter, whose talents as a preacher I am assured are above mediocrity. I have not enjoyed an opportunity of hearing him, therefore only write from hearsay; but the conviction on my mind is, that he cannot be an ordinary man. I recollect also an humble individual in Lucea, a man by the name of Gillin, formerly a slave, who not only taught himself to read and write, but also to play upon the violin, and is or was the leader of most of the quadrille bands in Hanover (Jamaica), a few months since. I deem it my duty to collect these facts, for I have ever acted, and will ever continue to act, upon the principle involved in that beautiful line,

Fiat justitia—ruat Cœlum.

From the examples which we have adduced, it is evident that there have been many negroes or Africans who have acquired a competent knowledge of science and literature, to entitle them to be ranked among enlightened men, and that there are others to be found who, by the aid of education and example, might be made to equal or excel them. But we have every reason to believe still, that these examples do not warrant us to come to any decisive opinion on the subject. As Sir Roger de Coverley remarks, much may be said on both sides, and it will be therefore more philosophical, and more in accordance with the enlarged views of the present age, to register facts, than to accumulate theories.—*Jamaica Physical Journal.*

CLINICAL LECTURE

ON THE

TREATMENT OF WHITE SWELLINGS.

By M. LISFRANC.

When we are called to a patient affected with white swellings, we should examine with particular care the state of the abdominal and thoracic viscera. It is, unfortunately, but too common to find a white swelling co-existing with a visceral affection. It would be superfluous to point out the method of investigation—as for this purpose we should give the entire history of these diseases. An objection may be made that white swellings should, nevertheless, be treated in the same manner; but we do not entertain this opinion, because if we should be so unfortunate as to combat the white swelling with success, we should find the visceral disease make such progress, that it would very soon be inevitably mortal. Thus, have we not hesitated to have recourse to rubefacients, and the application of blisters, to irritate and hinder its cure, and thus retard the progress of the visceral affection? Besides, in cases that are far from being rare, these diseases are in a latent state. After having then carefully explored the organs, we cannot fear of any serious disease; but, according as the white swelling progresses towards cure, the internal disease makes a progress that renders it evident, and if the patient should die, the autopsy would verify this result.

We may refer to this cause these cases where, after amputation has been resorted to, and no internal organic disease has been suspected, yet traumatic fever is the first apparent symptom of this latent affection, that usually ends by a speedy death. There are sympathies existing between the abdominal organs and the great articulations that are not sufficiently understood. Hippocrates remarked, that the supervention of profound lassitude announced serious disease. The lassitude and pains that are felt in the articulations, after the commencement of fever, are proofs of this sympathy.

There was, not long ago, a young man in the Hôpital de Saint Louis, affected with white swelling, and at the same time labouring under pulmonary consumption. This case presented very remarkable circumstances during the progress of these two diseases. According as the phthisis advanced, the white swelling, which was at first very numerous and painful, gradually decreased from day to day, and became indolent. On the death of the patient, the articulation was reduced almost to its normal volume.

Thus, nothing is more evident than these sympathies, and probably they exert a certain influence on the beneficial effects which result from salivation. When we have to treat white swelling thus complicated, we should have recourse to remedies proper for stopping their progress, and first relieve the internal disease if it be curable; if not, we must be content to use palliatives for both diseases. By acting otherwise we but increase the visceral disease. This point in the treatment of white swelling is one of the most important; and it is, nevertheless, very little known.

Unless the case be completely chronic, we must enjoin the most absolute rest of the limb, and we should make no exception to this principle, because by using the joint, the patient may induce an acute state of the tumour. But remember, also, that by absolute rest we run the hazard of a true anchylosis, and will at least cause a false one. It is necessary that either the patient or his attendant should every day practise judicious and careful movements of the articulation. There are, likewise, indications to be followed with regard to this rule: if these movements cause little or no pain they ought to be continued; if, on the contrary, they produce pain, and if it con-

tinue for part of the day, they should be abandoned; they will cause more injury than benefit, and it is better to run the chance of anchylosis than an acute inflammation that may hasten the disorganization of the tumour, and render amputation indispensable.

Another very simple thing, to which in general very little attention is paid, is the position in which the diseased limb should be placed. This care is very often neglected, and among the patients that come to the hospitals, we see many who have the leg half flexed on the thigh, in such a manner, that after the cure of the white swelling, we had for several months to combat an anchylosis, and not always with success. If the disease exists in the knee, put the limb in a splint, to keep it extended. This position is not in general more painful than the other, and even if it were a little more so, it would be better than to suffer an anchylosis to be established in the demi-flexed position. It is not necessary to enumerate the different positions in which each articulation should be placed; it is sufficient to say that they should be in relation to the usage of the limb.

Abscesses frequently form around white swellings: they ought to be opened as soon as possible, because they form extended focuses; the skin will be denuded, interminable fistulæ will be established, and, if the parietes of this focus should inflame, the purulent vitiation, or the abundance of the suppuration, would put the patient's life in danger.

It is useful to ascertain the changes of volume that may occur during the course of the treatment. For this purpose, three circular lines should be made, one at the apex, another in the middle, and a third at the base of the tumour; these may be made with nitrate of silver, which, by a slight application, blackens the skin; and care should be taken to renew these marks when they begin to be effaced. Each of these lines serve as a mark to measure the tumour; and the dimension of the tumour should be marked with ink. The articulation should be measured about once a week, and by that means the effects of the treatment employed may be appreciated. This has also a beneficial effect on the minds of the patients; indeed, it is remarked that patients are never inclined to believe the tumour decreases, because, from seeing it every day, they cannot perceive its very slow diminution—this slowness necessarily resulting from the nature of the disease. We should not neglect a care that may at the same time serve as a guide to the surgeon and an encouragement to the patient to persevere in a treatment so tedious and so fatiguing, from the repose to which they must submit.

When white swelling cannot be cured, and that it threatens the life of the patient, should we, as some surgeons advise, delay the amputation as long as possible, that the patient may become weaker, and that there may be more chances of success? This is a precept that has caused many misfortunes: we should be cautious how we follow it; for while we are temporising, re-action may take place in the intestinal canal, diarrhœa may occur, ulceration of the intestine may develop itself, and all will be lost. If the patient be too strong, it is easy to have recourse to sanguine emissions.

In general, too little importance is attached to regimen in the treatment of chronic surgical cases; patients are allowed to continue their accustomed diet, by which the disease is often rendered more obstinate. I have seen many cases which resisted the most approved treatment, and which have begun to yield the moment that the diet was changed. The quantity of food must be diminished in the first instance by one-fourth, and then by one-third, and even, if possible, by one-half; unless, indeed, there be a scrofulous diathesis, or the swelling be in a state entirely chronic. I shall not enter into details on this part of the subject (merely pointing out to you its great importance), but shall proceed to speak of white swellings with sub-inflammation, and those without this condition.

Treatment of the Acute Stage.—Mercury may be employed, so as to produce salivation; but this sometimes disturbs the stomach before the desired effect is produced, and many persons are unwilling to submit to the treatment, as it is unpleasant, and produces emaciation. Another remedy is presented by the muriate of barytes, particularly in scrofulous cases; but the disease is not always connected with scrofula, and it either fails, or succeeds but partially. Upon the whole, the results obtained from both these remedies are often unsatisfactory; when this is the case, recourse must be had to blood-letting.

If the patient be very robust, and the inflammation very acute, two or three palets of blood may be taken from the arm; and this may be repeated next day, or next but one, according to the effects which have been produced. It is of importance to remove the plethoric state, and to empty the vascular system. If after these general depletions the inflammation still persist, recourse must be had to local bleeding; but this must not be pushed too far, because, first you have to deal with patients labouring under a chronic disease, by which they are often already much weakened; and secondly, because the complaint is of long standing, and has acquired, if I may so speak, "a kind of right to the joint," producing in it a change of texture, which cannot return to a healthy state except by slow degrees. Accordingly, when you employ leeches to the extent of fifteen, twenty,

thirty, or forty, according to the constitution of the individual, you must not employ them several days successively, because this would reduce your patient too much. It is because these abstractions of blood have been carried too far that some have found them injurious, and looked upon them as inapplicable. It is also necessary to observe how the patient bears depletion. One person scarcely feels any effect from a bleeding, while another becomes feeble and blanched. We must, therefore, examine the pulse, notice the complexion, &c., and always keep in mind that bleeding ought rarely to be practised oftener than once in six or eight days. Again, if they have already brought the swelling into a chronic state, depletions must be used no longer with the same freedom, or merely as an antiphlogistic means; this would be to weaken your patient to no purpose whatever.

To the abstraction of blood you may join various other antiphlogistics, in the acute stage. If the seat of the disease admits, you may have recourse to topical baths; but take great care that the temperature of these be not either too high or too low; it ought to be such that the patient experiences no sensation either of heat or cold on placing the joint in the bath. Simple emollient fomentations are also advised, but I scarcely approve of them in the acute stage, and think they are only proper when this has passed away. Emollient cataplasms, either simple or with the addition of opium, ought to be applied twice a day. For the most part, the acute stage passes into the chronic in about three weeks, under the use of the above remedies; but sometimes the inflammation lasts much longer than this. I have seen it continue three, four, and even six months; and, indeed, in one case it lasted nine months; after which, the chronic stage which followed likewise endured nine months, when the patient recovered. In such a case, where the inflammation is obstinate, if salivation, or the muriate of barytes cannot be used, or have been so with success, what ought we to do? Are we to apply leeches in large numbers? Certainly not; we should thus reduce our patient too much. We must proceed more gently; applying leeches but only once in each fortnight or three weeks, and choosing for this those times when the inflammation seems to be undergoing an exacerbation. By acting in this manner we frequently contend with equal weapons against this rebellious disease, and we at least succeed in arresting the proper course of the malady. After a time, in short—either in consequence of the health improving or the disease of the joint having expended its force—the inflammation passes into a chronic state. In such cases the important point is, not to weaken the patient by carrying the antiphlogistic plan too far.

Treatment in the Chronic Stage.—I now proceed to speak of the treatment to be pursued in the chronic stage of white swelling—that is to say, when it is characterized by a complete or almost complete absence of pain and increased heat. It is necessary, in the first place, to establish a principle which is essential to the treatment of white swellings in general, and to this form of the disease in particular. When the acute stage has passed away, if we immediately have recourse to excitants, and discutients, even when the chronic condition has existed but a few days, the acute state, which is scarcely overcome, is very apt to return under the use of such remedies. Thus, suppose you observe to-day that a white swelling has become chronic; if to-morrow, or the day after, you apply leeches in reduced number, or pressure, or blisters, or moxa, or douches, you will often see the acute state brought back, because the part has been too much excited by these remedies. It is necessary to wait at least eight days, so as to afford time for the chronic state to be confirmed, before you combat it. I insist upon this the more, because it is not sufficiently impressed upon the minds of practitioners.

It is of no great importance in what order we consider the various methods to be employed in chronic white swellings; however, I shall speak first of those which I regard as most efficacious—most generally applicable, and always to be tried before those more energetic expedients which I shall recount in the last place. The first of these methods consists in the application of leeches in small number at a time.

Mode of using Leeches.—The number of leeches, under such circumstances, may vary from three to six, or at most eight, and this only in robust individuals; it is an excitement means, a true resolvent; and in support of this opinion I shall mention some illustrative facts. In violent inflammation, on an acute attack of peritonitis, for example, we are so much afraid of causing congestion of the part by leeches, that we premise their use by venesection; after which they are applied, but in very large number. The application of leeches on the upper extremities, as well as small bleedings occasionally repeated, often give rise to symptoms of congestion in the thoracic viscera. Leeches applied in small number more frequently cause erysipelas than when applied more copiously. If we wish to bring on the menses, we do not apply thirty or forty leeches to the thighs, but limit the application to six or eight; and we should farther endeavour to promote the object by arresting the bleeding from the leech bites soon after they had dropped off. Barthez held that leeches ought not to be applied till an inflammation was on the decline; and this principle is easily explained, when

we call to mind, that, in his time, leeches never were employed in large numbers at a time, and at the onset of an inflammation it were better not to apply leeches at all than to apply but a few.

In patients who have a tendency to apoplexy, when a white swelling or any other tumefaction of analogous character is situated on the upper part of the body, we must abstain from the use of leeches in small number. I have more than once seen cases in which such swellings affecting the elbow, or even the wrist, have had leeches used in this manner, with the result of producing all the indications of apoplexy. You will find in the thesis of M. Costen, how a few leeches, applied to a scirrhous breast, have caused congestion of the lungs, or disturbance about the heart; and we ought, therefore, to abstain from this method wherever there is disease of these organs. It is also clear that the menstrual flux ought to be attended to, and respect had to the six or eight days which precede it; for, by applying leeches at such time to the lower extremities, you will make the period anticipate, and probaby render the discharge more abundant; while, by applying the leeches to the upper extremities, you may suspend or retard menstruation. These facts are important, but unluckily there is nothing to be found on the subject in books.

Now, when you apply leeches in small number to white swellings, there may be, 1st, no perceptible effect; you apply four or six leeches to-day, and to-morrow you measure the swelling—you examine it carefully, and find no change;—2ndly, there may be an increase of size, to the extent of one, two, or three lines, with a little œdema and a little softening of the tumour. This effect, which astonishes and frightens the patient when it has not been anticipated, is in general very favourable. Absorption soon commences, and in twenty-four or forty-eight hours more, the swelling is found not only to have returned to its former size, but even to have diminished some lines. 3rdly, Without œdema or any increase of volume, you determine by the touch that there is a softening of the tissues; and this will be followed, in the course of two or three days, by a diminution in the tumour: or the excitement may have been greater than we had supposed, in the preceding cases, and then a slight erysipelas comes on. This, also, is a good omen; for I have never, or almost never, seen an instance in which this was not followed by a marked improvement in the swelling. This superficial inflammation disappears in a few days, and then the tumour, which had at first increased, begins sensibly to diminish. Lastly, common erysipelas may come on: this constitutes a complication of the disease which must not be left to itself, for the inflammation may extend to the subjacent textures, and you know what mischief this may do in textures already so much diseased. Leeches must then be applied in great numbers, and generally succeed in arresting the erysipelas; in which case, the same advantageous effects result as from the milder degree of the disease above alluded to.

When are we to renew again the application of but a few leeches, on the former principle? The period must necessarily vary according to the effect which is produced. When they have effected no visible change, I wait five or six days; but if any effect has followed, I then rest on my oars till this has disappeared for two or three days. Leeches thus applied do not weaken the patient, and may therefore be used many times; but at length they lose their effect, the constitution becomes habituated to them just as to opium, and we must then abandon them for a time for other remedies; after which we may return to them again.

But if this method may be employed alone, it is also capable of being combined with other means. Thus, when the leeching has produced softening of the swelling, but this is not followed by a diminution of its volume, we may then have recourse to compression. After a time the leeches may again be used, and, in fact, the two methods may be alternated.

Of Compression.—The end proposed by this means is double: first, that of lessening the arterial circulation in the tumour, so as to diminish its irritation, and secondly, that of promoting absorption.

What proves that pressure produces the former effect is this—that if it be only established on the tumour itself—if the cones of agaric do not extend at least an inch beyond its circumference, the compression succeeds less fully, less frequently, and less rapidly. Is it not universally known that pressure causes the part to which it is applied to waste, or at least arrests its growth? Is it not thus that a ligature round a tree prevents the growth where it is applied? Is it not well known that too tight garters, especially in women, lessen the volume of the limb, and after a time lead to deformity? Experience proves that in acute inflammations, pressure often renders them more aggravated, while in indolent swellings it often brings back the acute state, so as to require to be discontinued. As we regulate the dose of opium, of antimony, and other medicines, why should we not also measure our dose of pressure? Are swellings always equally hard?—are they always equally sensible? Certainly not: and accordingly we must carefully regulate the degree of pressure, so that it be proportioned to the state of the parts, the duration of

the disease, and various other circumstances.

First Dose.—Slight pressure, produced simply by circular bandages.

Second Dose.—Pressure a little increased by means of agaric cones and bandages, as before.

Third Dose.—More energetic pressure, with graduated compresses, and circular bandages.

Fourth Dose.—Still stronger pressure, made by means of some hard flat substance, or pieces of money wrapped in linen, and circular bandages. Pressure employed in this way succeeds extremely well on the hand, and indolent swellings which remain after fractures and luxations of the wrist, and which resist in general the other *doses* of pressure. But it is evident that this cannot be applicable in white swellings, or any other tumour which has but recently become chronic.

Fifth Dose.—This consists in kneading (*malaxation*). We had lately a patient here who had an induration at the outer part of the knee, which had resisted the other methods of compression, and only yielded to this.

We must always be ready to suspend the compression when it passes the degree and effect intended, and its employment must be subjected to all the rules which ought to regulate the practitioner in the use of discutients. Thus, if heat and pain reappear, it is to be left off: if the effects just mentioned last more than twenty-four hours, they are to be combatted by antiphlogistics, and we only return to compression when these effects have entirely disappeared. Some details may be necessary as to the application of the second dose of pressure. The agaric ought to be soft, thick, and good; for if it be hard or thin, and but little elastic; the pressure would necessarily be greater, and become equivalent to a higher dose. The agaric is to be cut into round portions of unequal size, so that when placed one above another, they may form truncated cones of an inch or an inch and a half in height: the base of the cone ought to be sufficiently large to embrace the tumour, and extend an inch beyond its circumference. In most swellings of this kind, several such cones are required to effect a regulated pressure over the whole extent.

What follows with regard to pressure, applies to other tumours as well as to white swellings. Sometimes the tumours are moveable, and roll so as to escape from the action of a single cone of agaric: nothing is more common in glandular swellings. In order to fix such a tumour, several small cones are to be placed round the circumference of the tumour, and one large one upon it. In the axilla, for example, in order to prevent enlarged lymphatic glands from escaping, a cone must be placed above them, so as to force them downwards, and keep them within the action of the larger cone, which is then to be placed right over them.

The pressure ought not to be kept up during three or four successive days, because the circular bandages get relaxed, and the pressure thus becomes unequal; but the apparatus ought to be resumed once in each twenty-four hours, and the patient allowed to remain about a quarter of an hour without it.

When pressure is applied to the chest, it must be made lightly during the first few days, lest the respiration be too much impeded. M. Recamier has contrived a kind of corset expressly for this purpose.

As to the rest, compression may be employed at the same time as other means calculated to disperse the tumour, such, for example, as frictions with the hydriodate of potass; it ought also to be alternated occasionally with the application of leeches in small numbers. When the swelling is quite gone, it is, nevertheless, prudent to continue the pressure for some weeks, or even months, if the case be one of scirrhus, as we thus frequently prevent the recurrence of the disease.

It has been said that pressure would cure cancer in a state of ulceration. I do not think so; and, in truth, if you consult the cases which have been published, you will perceive that pressure has not been employed alone. The centre of the tumour has first been destroyed by means of the knife, or caustic potass, after which pressure has been employed, with a view of dispersing the rest of the disease. I believe that, in such cases where they have proved successful, the cancer has been destroyed by the first part of the process, and that the surrounding induration has been no more than that hardness which we meet with around such tumours, but which has not yet taken on the cancerous action. This is a subject on which I have elsewhere advanced opinions, which appear, to me at least, to be of great importance.

In tumours regarded as cancerous, as well as in all others, I reject the plan of compression — 1st, when the symptoms show a certain degree of acute inflammation, either in the tumour itself, or in the surrounding textures; 2ndly, when the tumour, although not very large, is hard, unequal, and knotted, adherent to the skin, and particularly when the skin itself is the seat of suspicious-looking ulceration (unless the removal of the really scirrhous part be premised); 3rdly, when the tumour, whatever be its size, presents some points which are indurated, and others which are soft; when these softened portions afford that kind of spurious fluctuation often mistaken for genuine fluctuation, which shows

a pultaceous disorganization of the tumour.

It is because these cases have not been distinguished—it is because the necessary indications have not been attended to—that compression has been so often rejected as a dangerous precedent. It was this, without doubt, which led M. Dupuytren to describe it as rendering cancers more adherent, accelerating their progress, and producing ulceration. I have, however, to congratulate myself on having many times succeeded in saving the mammæ, in women in the better ranks of society, after other surgeons had condemned them to amputation, as the only possible means which remained; and this success is the more gratifying, inasmuch as many of these cases are now of several years' standing, and appear to be, to me, radically cured.

When the tumour, then, is not already far advanced, we may hope to be able to cure it; and still more frequently do we succeed in diminishing the swelling, and rendering any operation more simple when at length it becomes necessary. But if a tumour, after having been improved by compression, or without such change, becomes again altogether stationary—if no impression be made upon it by any other discutient means, we must be prepared to see, as I have often done, a sudden and rapid cancerous degeneration supervene. Under such circumstances, do not think of pressure, but operate without loss of time. I think, in short, that compression, well regulated, and applied in cases properly selected, may succeed, and do wonders. Patients, women particularly, will always submit to it more readily than to an operation. But if the compression should fail, or even produce any inconvenience, we then have the knife left when we are satisfied that it alone will do.

I shall conclude these remarks by recommending you to attend to the medical treatment as well as to the surgical, for you will thus certainly have more success. The treatment by pressure must therefore be aided by such internal remedies as the case may appear to require.

Case of Sudden Death of Arthur Clegg, Oct. 16th, with Post Mortem Examination Appearances Thirty-eight Hours after Death. By Henry Hargreaves, M.R.C.S.

External appearances of the body are a flow of frothy mucus from the left angle of the mouth, with a peculiar sweet odour at first, on inhaling a breath near the deceased (which might possibly have been mistaken for that of prussic acid), afterwards this changed into a cadaverous and unpleasant inspiration. On inspecting the body twelve hours after death, a cloth laid over the mouth was stained with bloody serum. On examining the cause, the discharge proceeded from four or five points, which had been cut on shaving the corpse, and over which the barber had laid pieces of hat-down. On my removing two portions, the effusion recommenced, as if they were the recent leech-bites of a living person. I name this as not being a usual phenomenon; there was lividity of the ears, cheeks, posterior parts of the head, neck, shoulders, also on the posterior parts of the back, arms, legs, and anterior parts of the chest, with rigidity of the extremities. The subject was athletic and very fat, and had the appearance of having died in the enjoyment of good health.

Brain.—On laying aside the integuments covering the cranium, we observed great turgescence of the cutaneous vessels, and both exposed surfaces had a very red appearance from that cause. After the cranium had been cut through, all round, and before the cut portion of the bone could be removed, there flowed out about four ounces of dark venous blood, appearing as if the longitudinal sinus had been opened. On removing the skull-cap, the dura mater was dotted all over with numerous bloody points; and on reflecting it, we found strong adhesions of this membrane to the arachnoid tunic in one or two places. This adhesion was constituted by means of a gelatinous organized lymph of firm texture, which was plentifully effused upon the arachnoid membrane, more particularly along the longitudinal sinus. We concluded this to be the effect of a chronic inflammation, as its connections were firm and perfectly organized, and could not easily be separated. On slicing the cerebellum horizontally and down to the ventricles, numerous bloody points were observed. On opening the lateral ventricles, about four ounces of light-coloured serum flowed out, after which the floor of the ventricles was thickly coated with effused lymph of the same character. Both choroid plexuses were highly vascular. The third and fourth ventricles contained serum, and the communication between these parts was dilated and unusually well marked. The cerebellum was also exceedingly vascular, and the brain throughout exhibited tokens of engorgement, and was slightly softened.

Chest.—On laying back the integuments of the chest, the cutaneous vessels were large and vascular, the pectoral muscles of a deep red colour, powerfully developed, the deceased being a joiner. Effusion to a considerable extent into the chest, with both old and recent attachment of the lungs to the costal pleuræ, diaphragm, and pericardium; both lungs appeared in an engorged state. On slicing the right lung, it retained its crepitat feel—a frothy serum or

mucus escaped on pressing the cut edges. The mucous membrane was in a state of slight sub-acute inflammation, and in the clavicular portion of the right lung, we found a small tubercular cavity coated on its lining surface with a caseous matter of a dark colour: after this was cleared away the cavity might contain a full-sized horse bean.

Heart.—The heart was rather large, and partook of the general vascular character of the rest of the organs already examined. The lining coat of the origin of the aorta, as well as the aortic or semilunar valves, were much injected and prominent, and probably this morbid affection might be continued along the whole arterial system.

Liver.—The liver presented, in a slight degree, the usual mottled appearance of the drunkard, particularly on its concave surface; it was unusually large, and much gorged with blood, but not otherwise morbidly affected.

Gall-Bladder.—The gall-bladder contained about one ounce of dark-coloured bile, and its secreting surface exhibited a beautiful specimen of a raised velvety surface, of a deep yellow tinge, apparently in a most active state for performing its functions, or, I might add, in an over-excited state.

Stomach.—The stomach was much distended with flatus, and occupied the entire epigastric region, as well as the right and left hypochondriac. On laying it open much air escaped, and half a small basinful of undigested aliment was emptied out, consisting chiefly of raw beef, which had not been masticated. The villous tunic was exceedingly vascular, though not much corrugated; and here and there patches of blood, effused into the submucous tissue, presented themselves, but not to any extent. This surface was not coated with a gelatinous matter, nor was it morbidly softened. Towards the cardiac extremity a small vessel had given way, seemingly, which would account for the hæmatemesis which occurred on the day of the man's death.

Spleen.—The spleen was morbidly softened.

Bowels.—The peritoneal surface of the bowels appeared of a darker colour than usual, particularly the small intestines, from vascularity, but there was neither effusion nor adhesion. The villous coat of a portion of small intestine which we examined, appeared healthy, but was loaded with aliment.

Kidney.—The left kidney was inspected, which appeared perfect in structure, but had the high vascular engorgement of other viscera.

Urinary Bladder.—The bladder was empty and contracted.

Remarks.—On a review of these appearances, the natural reflections and remarks which suggest themselves, are—That the hæmatemesis was an effort of nature to relieve herself of the general plethora which prevailed in the whole system. That the effort was abortive, and that the deceased had probably loaded his stomach with raw beef after that occurrence, which was said to have happened at his employment as a joiner. He stated that he had been taken ill on his way home, with a pain of his stomach, shoulders, and arms, and that he was compelled to lay down in the fields for some time before he could proceed. After this he called at a public-house, remained there half an hour, still complaining, drank a strong glass of gin and water warm, then lay down on a form for about ten minutes, and then departed in a stooping position, and proceeded home, about half a mile. On arriving there he gave directions for tea to be prepared, and said he would return as soon as it would be ready. He now proceeded to a public-house over the way; asked an acquaintance what was good for a pain of the stomach. A glass of brandy and water was recommended and obtained; but no sooner had he tasted it than he fixed his eyes and fell on the floor. On my arrival, in about fifteen minutes, he was perfectly dead, and had been for some time; indeed, I think he expired immediately. It is probable that the general plethora was caused by the constant and long continued excitement of stimulants, the man having been a confirmed drunkard for years. That the organized lymph effused on the brain was the result of a chronic action set up there and continued by habits of intemperance. That the serum found in the ventricles and chest was very likely effused after death—the thinner parts of the blood exuding, from the overloaded state of the vessels. The deceased had at no time made more than general remarks of his head aching. (In the Edinburgh Journal for October, a case of meningitis, with effusion of lymph under the dura mater, is related by Dr. Maclagan, and it is in some respects analogous to the present case, in so far as both were unattended with the pathognomonic symptoms of inflammatory action of the membranes of the brain. Also a paper on the insidious character of inflammation of the brain and its membranes, will be read with gratification, in the Dublin Journal for September, 1833, from the able pen of Mr. Carmichael, one of the first practical surgeons of that city.) His nights had been generally restless. He had worked at his employment the whole of the week, and had walked a distance of two miles night and morning. Mr. Dickin, with myself, thought, had the deceased been copiously bled one hour before his death, his life might have been preserved for some time, in conjunction with a suitable diet and a perfect reform in his conduct. No morbid ap-

pearances contra-indicated us coming to this conclusion, with the exception of the small tubercle of the right lung, and that might probably have cicatrized under very favourable circumstances. That the immediate cause of the man's death was sudden compression of the nervous action either of the brain or sympathetic system—apoplexy in effect, but not exactly so, according to the definition of systematic writers. That the sudden compression might be consequent on severe pain of the stomach calling for increased arterial action, and the system being already surcharged, together with the pouring in of stimulants, this awful death was the result of the necessary reaction not being able to be accomplished. Or that a distended stomach might be the cause operating upon the brain, as a means of preventing the free return of blood from that organ.

I have been induced to give the details of this rare case, as it cannot fail to be highly interesting to the students of medical jurisprudence, as being a cause of sudden death not often described or laid down in treatises on diseases of the brain, as well as being a useful lesson to the profession generally, never to treat affections of the head indifferently, more especially in the case of those who labour under continued excitement, either from mental occupation or intemperance.

Remarks on the Case of James Hall, aged 46, *Oct.* 25*th*, 1835, *with Symptoms, taken at his Bedside; and Port Mortem Appearances* 38 *hours after Death.*

Says he has generally enjoyed good health, and never been ill, with the exception of having had a nervous fever about twenty-six years ago, when he was indisposed six weeks: during the fever he was delirious. Ten years since he was accustomed to expectorate florid blood in small quantity, sometimes every day, and sometimes not so often. This continued about six weeks. He did not take medical advice. Since that he felt a singing noise in his head, which continued several years; but within this two years he has not felt it. He has not been capable of following any hard employment for eight years, but has, notwithstanding, continued his occupation as a weaver.

His health for the last six months has been gradually declining, and he has only been able to follow his business occasionally, when he was better, and then only for a few hours, with sensations of great fatigue and exhaustion.

This being an attractive case, he was seen by many medical practitioners with interest, and I believe they all concurred in considering the case to be aneurism of the common carotid artery of the right side. One surgeon proposed an operation, but the generality of them thought that a state of disease about the heart might preclude the hopes of a favourable termination being anticipated.

The present symptoms are—pulse 78, and irregular, sometimes intermitting; on applying the ear over the heart and eliciting its contractions, there is a strong impulse given to the listener's head, which raises it from the patient's chest every time the heart contracts. Heart's action irregular, and heard over a great extent of the chest.

A pulsating tumefaction of the epigastrium, synchronous with the heart's action and pulse. A circumscribed pulsating tumour, also synchronous with the pulse, is situated on the right side of the neck, extending as high as within about one inch and a half below the inferior border of the inferior maxillary bone. The breadth is about half an inch on the superior edge, whilst it becomes broader as it descends, and is about two inches and a half across along the superior edge of the clavicle, and then dips down into the chest. A smaller tumour occupies the left side, which pulsates synchronous with the pulse also. The bellows sound is distinctly heard in both tumours. The integument in these situations is perfectly natural, but in the face it is suffused with yellow; the nose is large and blue. Tongue clean. Urine scanty, and high coloured, but does not coagulate on being heated. Appetite bad; bowels freely moved. Œdema of the lower extremities, which pit on pressure. A fluctuation of fluid in the abdomen is evident: the head is free from pain: inability to lay in the horizontal position, or right or left side, for long together, without causing a short, dry, troublesome cough, and an immediate sensation of suffocation, which compels the sufferer to change his position: the easiest posture is set up in bed or a chair, and raised with pillows; even then the feeling of immediate death assails him, but not so frequently: he gets very little sleep, from pain in most of the large joints: on making exertion, a sudden stop is put to the breath, and a fixed pain is experienced in the chest, which extends down as low as the elbows of both arms.

Last evening, for the first time, a wheezing noise or rattling, as the patient expresses himself, was felt, which troubled him a good deal.

Prognosis. — Aneurism of the thoracic aorta, and of the right and left carotid arteries. Disease or obstruction to the due action of the aortic or semilunar valve, with hypertrophy of the left side of the heart, or both. The patient being anxious to have the swelling of the extremities relieved, I was induced to prescribe for him—

℞. Pulv. digital., gr. xij;
Hyd. submur.,
Pulv. scillæ, ā ā gr. vj;
Nit. potassæ purif. ℥iss, ft. Pulv. divid. in chartula, xij: 1 nocte maneque sumend.

℞. Pulv. jalap. gr. x;
Potassæ supertart. ℥j;
Pulv. zinzib., gr. v; ft. pulv. Mitte iv, 1 alterno mane sumend in thea.

℞. Ft. opii, ℥ij;
Mist. camph. ℥iv. ft. Mix. coch., L. H. S. S.

Since taking the above notes, he remembers that about nine years since, whilst he was carrying a heavy load on his shoulder, he gave a sudden lift to raise it, when he instantly felt something give way about his heart, but he did not faint; on arriving home, he felt very unwell for that day. After this, boils appeared over different parts of the body, following each other in succession for a year or two: afterwards a large abscess formed on the back, which required to be incised: no others have been observed since.

Oct. 28th. No increase of abdominal swelling; the lower extremities are very much swelled; says he has slept better since last report: secretion of urine not increased: bowels moderately relieved yesterday, but not since: ordered broom tea for common drink.

℞. Ex elaterii, gr. ss.
Potassæ supertart., ℥vj;
Pulv. jalap., ℈j;
Sp. æther. nitr., ℥ ss;
Inf. rosæ, ℥ viiss, ft. mix coch., ij. L. ter die sumend.

℞. Ung. simplex, for the legs, to be rubbed morning and evening. The opiate at bed time to be continued, the rest to be omitted.

Oct. 30th. The bowels are constipated; the secretion of urine scanty and high-coloured; great thirst; clean tongue; pulse 80, and intermitting: complains of a fullness of the epigastrium; no increase of abdominal enlargement; œdema of the right lower extremity a little increased; rests much better at night, and praises the opiate very much. He expresses great hopes of recovery, and says if he could get cured of the swellings, he should be well.

The last mixture disagrees with the stomach, which rejects it, and I have directed only one spoonful every two hours. Œdema of the face, and a purple cast of the nose.

Nov. 1. Tongue clean; pulse irregular; appetite languid; thirst urgent: last night the rest was more disturbed, and he felt many unpleasant symptoms, generally of a ner vous character. Bowels relieved once thismorning, and costive; the secretion of urine not increased; complains of a tightness of chest and difficulty of breathing. Anasarca of extremities a little increased.

He continued one tablespoonful of the mixture every two hours, which did not operate either on the bowels or bladder; and after taking it one day, he was obliged to omit it in consequence of incessant vomiting; it was tried in the following form:—

℞. Ex elaterii, gr. i;
Pulv. G. acaciæ, ℈ij;
Pulv. opii, gr. iij, ft. Pulv. divid in chartu, xvj, 1 ter die sumend.

℞. Emp. lytto sterno.

Nov. 3rd. The elaterium still disagrees with the stomach. The following was directed to be taken:—

℞. Pulv. digital., gr. ss;
Pulv. scillæ, gr. ij;
Hyd. submur., gr. ij;
Potassæ supertart., ℈j, ft. Pul. mitte xij, 1ta die sumend.

℞. Potassæ supertart, ℥j;
Pulv. jalap, gr. xv;
Pulv. aromatic, gr. v. ft. pulv. mitte iv, ibis septame sumend.

The opiate at night was increased in the following proportion:—

℞. Ft. opii, ℥iij;
Mist. camph., ℥iv. ft. mist. coch. i, Larg. H. S. S.

The blister relieved the chest very much: it is still discharging a great quantity of serous fluid. The other symptoms much the same: little disposed to leave his bed.

Nov. 6th. Bowels more freely opened with the purgative; rests better at night. Urine still scanty; tongue clean; thirst urgent at night; appetite bad. Anasarca of the lower extremities much increased, but no increase of abdominal effusion.

Nov. 9th. Anasarca of the lower extremities much the same. The hands and face are œdematous. Abdominal swelling diminished; urine still scanty; bowels costive; tongue clean; rests better; blistered surface looks healthy, and still discharges freely, which gives him relief; great thirst. Discontinue the powders, repeat the opiate at night.

℞. Ol. crotonis, mj viij;
Micæ panis, q. s. ft. pil. vj. One to be taken every three hours until the bowels act freely. Afterwards repeat one night and morning, if necessary.

Nov. 11th. The bowels acted copiously to these pills. The abdominal swelling greatly diminished; the secretion of urine somewhat augmented; still great œdema of the upper and lower extremities; blister healed; thirst great; appetite very bad; feels more composed, but expresses very great langour and a feeling of exhaustion. No pain in the head; other symptoms much the same.

Nov. 13th. Complains of excessive weak-

ness this morning, with thirst and loss of appetite; pulse irregular; abdomen flaccid; œdema of the upper and lower extremities as before; the face is much swelled, and of a blue colour; bowels moderately relieved. He can now lay horizontally, and on either side with more ease than he formerly could; he expresses himself free from pain.

Nov. 15th. Appears gradually sinking. Bowels relieved; no inclination for any support, but says he does not now suffer the least pain.

Nov. 16th. He lays easy and composed, but I find him sinking fast with œdema and coldness of the extremities, and great action of the respiratory muscles.

Nov. 17th. I made a visit this morning, but my patient expired in a convulsion, as I was informed, about one A. M.

Post-Mortem Appearances.—Lividity of the upper and anterior parts of the chest and neck, with swelling of the upper and lower extremities. On extending the neck, and making a longitudinal incision about six inches long over the course of the common carotid trunk, through the integuments, and superficial fascia, exposing the external jugular vein, which was much dilated; and after reflecting the sternal origin of the sterno-cleido mastoid muscle, we observed a tumour; after clearing away the cellular membrame, &c., we discovered this to be the right lobe of the thyroid gland enlarged and pushed out of its natural situation, more to the right side. After reflecting this structure, and on laying open the sheath of the vessels, we found the internal jugular vein laying in front much distended, and forming a sac which would admit the largest sized rectum bougie; this being pushed to one side, we next exposed the pargum nerve, laying between the vein and artery. The common carotid artery was next examined, and was found to be perfectly healthy in structure, and of the usual calibre: our views now began to alter; Mr. Dickin supposed that the internal jugular vein had taken on a pulsating action, from the regurgitation of blood from the heart. Mr. Taylor and I thought that the vein pulsated from its vicinity to the carotid trunk, but immediately afterwards we agreed with Mr. Dickin in his views; and it was clear we had all been mistaken in the true character of the case, and that there was no aneurism at all. We now proceeded to extend the incision along the anterior parts of the chest, which we inspected. The heart lay in its natural situation, but was as large as the heart of an ox. The right auricle was thin and much dilated, and would have contained about six ounces of fluid. The right ventricle was not increased in size: the right auriculo-ventricular opening was surrounded by a hard ring of bony deposit, which rendered the valve incapable of performing its functions. The left auricle was natural, but the left ventricle was much thickened in its substance, or hypertrophied, but not enlarged in its cavity. The semilunar valves, situated at the root of the aorta, were completely ossified, and incapable of preventing the blood returning out of the aorta into the ventricle: the lining membrane of the aorta was vascular. We were not allowed to move the lungs, or prosecute our interesting dissection further, owing to the entreaties of the wife of the deceased, who was hardy enough to witness the whole process, but we ascertained that there was no aneurismal tumour in the whole course of the thoracic aorta.

Remarks.—It would be very important could we arrive at any positive signs by which we could distinguish this affection from real aneurism, the more so as they are so differently situated with regard to treatment, as in the present instance: had the operation been undertaken of tying the common carotid, it is probable its difficulty would have perplexed our best operators, and it could not have been accomplished independent of the imminent danger to the life of the patient; and although it was thought prudent not to operate by the majority of surgeons, they were little aware of the precise nature of the case, but gave their opinions against the propriety of operating in consequence of the irregular pulse and a tumour of precisely the same character being situated on both sides of the neck.

I think, should we meet with a case of aneurism in or about the neck, with an irregularity of the pulse, and strong heart's action also, with any signs of anasarca, and at the same time a similar pulsation of the epigastrium, we might suspect the case, although it should have every characteristic symptom of aneurism; and I think it is not probable that the like affection could be situated far from the heart—that is, should we have a tumour in the leg, thigh, or groin, the arm or temples—and without having the pulsation continued to near the entrance of both cavæ, we might at once say that it was not of the character of the present case. This case clearly establishes that veins can take on a pulsating character under peculiar circumstances, as has been before advanced. I was accompanied in this case with Mr. Dickin and Mr. Taylor, both surgeons of Middleton.

Since making the above remarks, I have read a very interesting case of pulsation in the veins of the upper extremities, by Dr. Benson, in the Dublin Journal for November, 1835.

Reviews.

On Insanity; its Nature, Causes, and Cure. By Wm. B. Neville, Esq., of Earl's Court House. 8vo., pp. 192. Plates. London: Longman and Co. 1836.

The author of this work enjoys the most extensive opportunities of observing and studying all the forms of mental alienation, as resident medical officer in one of the best regulated establishments for the unfortunate sufferers from distempered mind, that exists in this country. The institution to which we allude, is Mr. Bradbury's, at Earl's Court House, Old Brompton—the identical mansion from which our immortal Hunter made known many of those discoveries which honour our country, and will be appreciated by the cultivators of medicine in all nations, to the latest practitioners of the healing art. It is but justice to observe that some eminent physicians and surgeons have certified to the superior arrangements of Mr. Bradbury's establishment, which, we must observe, is intended for the softer sex only; and when we insert the names of the physicians and surgeons, in the order in which we find them in this work, we think several of our readers will agree with us in opinion: these are those of Sir Henry Halford, Mr. Howship, Dr. Maton, Dr. Chambers, Dr. Ryan, Dr. Roupell, Mr. Laurence, and Dr. Tweedie. We are not acquainted with any asylum, for the class of patients to which we have referred, equal to this, with the exception of Dr. Tuke's, at Hackney. In delivering this opinion, we by no means intend or wish to detract from the merits of the many similar and numerous establishments in this country, but we speak from personal observation.

Mr. Neville gives an excellent description of the various degrees of mental aberration; he cites the best writers on this class of disorders, both national and foreign; he adds his own conclusions, after many years' faithful observation; and his work must be perused with great interest and instruction, both by the general and medical reader. It is not a metayhysical disquisition on the various degrees of mental aberration, but it is a faithful history of insanity as it appears in every-day life. The disorder is one involved in the greatest obscurity; but the remarks of an every-day observer are entitled to the most attentive consideration. We differ from Mr. Neville upon many points with regard to the pathology of insanity; but we readily admit that his work, upon the whole, is calculated to do great good to the public, and to afford important information to the junior members of the medical profession.

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Practical Observations on Homœopathy; with a variety of Cases tending to prove its decided Superiority over the Ordinary System of Medicine. By W. Broackes, M.R.C.S. 8vo.

The author is entitled to no small share of credit for his modesty in professing to fulfil his promise in his title page, which he has entirely forgotten to perform in his text. He praises the new system, by which he has cured a vast number of nameless patients in blank sheets; and the cases are so very happily narrated, that they cannot fail to produce the intended effect. This production is calculated to amaze and astound the popular reader; and the author cannot fail of obtaining many patients by Hahnemanism, *alias* the records of his great success. But we must stop our pen, and proceed to notice another work of the same genus.

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Introductory Lectures to a Course of Nervous Irritation, Spinal Affections, Distortions of the Limbs, Malformations of the Chest, &c., &c. Delivered by J. Evans Riadore, Esq., F.L.S., Lecturer on Surgery, Fellow of the Royal College of Surgeons, &c. 12mo. pp. 106. London: Churchill. 1836.

This is what our publishing friends would call a catching title. The author has really evinced great graphic power in compressing a scientific account of so many diseases into something more than half the size of this Journal, which may be obtained for three shillings and sixpence. Now our matter, at the price, would make, in large type, a volume worth three times the amount. But we accommodate the profession, our author, and the enlightened public.

He lets the world know that the College

of Surgeons has acknowledged his humble pretensions "as one of their teachers in the science of surgery"—good! and further states, that "in this and the following lectures I shall purposely be diffuse in my observations upon the body in a healthy and diseased state, and upon the various circumstances that influence it favourably or otherwise to health, in order that you may be prepared for my future exposition of these subjects, which I shall here but cursorily notice."—(p. 6.) Now, gentle readers, only reflect that the author has undertaken to elucidate the physiology, hygiene, and pathology of the body, and etiology of diseases, in 102 pages duodecimo, which you may carry in your waistcoat pocket. Here there is a multum in parvo, a treatise ex professo, *de omnibus rebus medicis et quibusdem aliis*. The work also contains a judicious sprinkling of difficult cases attended by Sir B. Brodie, Mr. Green, and the author, and happily cured by the latter. Our readers have now the means of judging of the value and object of this work.

The London Medical
AND
Surgical Journal.
Saturday, February 27th, 1836.

REFORM IN THE ROYAL COLLEGE OF PHYSICIANS.

At a late meeting of the Royal College of Physicians, a motion was made by Dr. Elliotson and seconded by Dr. Wilson, "that Licentiates of five years' standing should be eligible to be ballotted for as Fellows." The mover of this motion delivered an eloquent speech, in which he pourtrayed the injuries inflicted on the profession by the exclusive bye-laws of the institution; and contended, that if the physicians were in friendly union, medical science would be advanced; the College would be enabled to publish valuable Transactions which now emanate from minor Societies; Museums and Libraries would be presented to it; and it would become so powerful that the legislature could not refuse it any aid for the preservation of the public health and the maintenance of the dignity of the profession. The seconder of the motion also expatiated on the advantages of liberality on the part of the College, and concluded, after the delivery of an animated address. There was not a word uttered in reply; but the motion was lost by sixteeen black balls to eight white ones. The minority consisted of Dr. Elliotson, Dr. Wilson, Dr. Bayton, Dr. Billing, Dr. Glendenning, Dr. Roget, Dr. M'Creight, and Dr. Elliotson, Jun.

Among the excluding party were Dr. Latham, Dr. Hall, Dr. Watson, Dr. Machmichael, Dr. F. Hawkins, Dr. Turner, Dr. George Burrows—the son of Dr. George Mann Burrows, one of the earliest and most zealous reformers through whose exertions the first step in modern reform, the Apothecaries' Act of 1815 was obtained. Dr. Williams, and Dr. Waterfield, voted with the majority, and Dr. Roots paired off.

It is worthy of remark, that all the Licentiate Fellows except Dr. Roget, were absent—Dr. Prout, Dr. Southey, Dr. Bright, Dr. Wilson Philip. The following Fellows, Drs. Chambers, Seymour, M'Grigor, Hewit, and Paris, were absent.

If the Licentiates were disposed to retaliate, they could readily bring their insolent opponents to their senses; and this could be most readily done by refusing to meet these worthies in consultation, on the ground of violating the laws of the kingdom, by their unjust bye-laws. But they need not trouble themselves: the fate of the collegiate monopoly is fixed, and that body has not penetration or common sense enough to perceive its dangerous position, and to escape from it, before the new reform act can effect its destruction.

If the College were capable of acting wisely, which has never been the case since its foundation, now a period of more than three centuries, this is the very time for liberal mea-

sures. The insulting and absurd distinction of its members into grades would be abolished, the cordial union of Physicians would raise the respect of the College, advance science, and destroy our friends the Rhabarbarians, or confine them to their proper calling as wholesale druggists. General practitioners would infinitely prefer receiving their licenses from the different Colleges of Physicians than from the Company of Apothecaries; and this fact has induced the friends of medical reform to get rid of these Companies as scientific or examining bodies, altogether. Nothing but trickery and imposition could have enabled the London Company to obtain an Act of Parliament, which gave it much more power than either the College of Physicians or Surgeons. It was placing the cart before the horse, and most humiliating to the collegiate bodies. But the latter were too dignified and lazy to watch over their own interests, and they allowed the worthies of Blackfriars to carry things their own way, and for more than twenty years.

If the College of Physicians had afforded the public a sufficient supply of well educated medical practitioners, and continued their lectures on Anatomy and Surgery, as in the days of the illustrious Harvey, they would have prevented the necessity for the establishment of the College of Surgeons and Barbers, and the union of the Druggists and Grocers, which for a long period supplied this section of the kingdom with Apothecaries. But instead of acting as the Fellows ought to have done, they allowed rival institutions to be established; and now, when it is too late, are extremely desirous of abolishing them. This is a silly undertaking. As for the benefits conferred on the public by the Surgeons' College and Company of Apothecaries, they are much too important to warrant the suppression of this powerful and useful body. It is, however, certain that the present Apothecaries' Company will not be suffered to continue an examining body, and that its powers in that respect will be transferred to the College of Physicians, or to the new Faculty of Medicine; and it is very probable the present Court of Examiners will be confined to qualifying educated chemists, who will perform the duties of the apothecary of former times.

MORRISON AND THE HYGEISTS.

A VERDICT of manslaughter has again been given against one of the agents of Morrison. When speaking on this subject the other week, we mentioned the melancholy and fearful sacrifices which had been made to the "Universal Medicine." We then hoped there would be no more victims to that cold-blooded quackery. We then hoped that the records of our Courts of Justice, circulated through the kingdom by the whole public press, would act as warnings to the infatuated believers in a doctrine so totally absurd and dangerous. We have, however, been disappointed; another human being has lost his life by the immoderate use of the "Universal Medicine." Will not this open the eyes of the people? or will they still continue blindly to pursue a course attended with the most imminent danger?

We have reason to know, however, "the system" is rapidly getting a bad name; though gratuitous lectures may be delivered in public buildings in favour of the wholesale pill system, to a number of its partizans; though in those lectures, delivered by an individual

"With just enough of learning to misquote,"

the abuse thrown upon the profession by one styling himself a member of it, may be received with vulgar plaudits and ignorant delight; though the few "friends" on the "platform,"

"Whose vacant laugh is ready chorus,"

may believe they are by these means supporting their system—thinking people see in such facts, that their idol must indeed want support when it adopts such means to endeavour to procure it. Are the auditors of such lectures aware of the easy manner in which the opinions of celebrated men are miss ted, or

only such parts given as suit the purpose of the lecturer? The pale-faced hypochondriacs and the dreaming enthusiasts who visit these lectures, show well the basis upon which the "pill system" has risen. They show, also, something further—that there is no species of quackery too absurd, and no medicine too dangerous for some people to believe in it and greedily swallow it.

"A fool at forty is a fool indeed!"

LONDON MEDICAL SOCIETY.

Monday, February 22, 1836.

DR. WHITING, PRESIDENT.

Remarkable Case of Double Vision.

Mr. Fields requested the opinion of the Society with respect to a case of disordered vision. The patient, a young man, twenty-three years of age, is of florid complexion, and dark eyes; his health is, generally, good; he is very fond of music, and spends a considerable time in playing, reading, and writing it—so much so, indeed, that he allows very little time for rest; he lives very abstemiously, frequently going without his dinner; his eyesight has always been remarkably good. About two years since, he first began to perceive that, when looking on a bright object, he saw two distinct complete representations of it—one a few inches above the other, not, as is usual in double vision, side by side; the real object appears to him brighter than the duplicate.

This affection has continued to increase, and it is now become permanent. When he is fatigued, the disorder is more apparent. The double vision is chiefly confined to objects some distance off—when he is writing he sees correctly. Both eyes are similarly affected, so that if he closes one, the duplicate of the object is still visible. Mr. Fields thought the pupil did not contract so perfectly as it would naturally. The affection is not particularly annoying. He never wore glasses, and never was troubled with *muscæ volitantes*. The treatment prescribed had been to wear glasses—and to avoid exciting causes, such as looking at a strong light, reading in the evening, &c. Mr. Fields had seen another case of double vision, in a gentleman aged between fifty-eight and sixty—the objects appearing side by side. At the commencement of the affection, this patient's intellect was perfect, and he seemed in pretty good health, but he subsequently lost his memory, and eventually sunk into a state of dementia. On examination after death, spiculæ of bone were found in the brain, chiefly about the sella turcica.

Mr. Kingdon was inclined to think that the great practice in music by Mr. Fields' young patient might, in some measure, account for the affection, by the habit the eye had acquired in looking at two bars of music at the same time. His reducing himself, too, by abstinence, might have some effect.

Mr. Pilcher thought the affection depended on one of two causes—either that there was an irregular action of the muscles of the eyes, which put one eye above the level of the other—or that it was a case of incipient amaurosis.

Mr. Greville Jones thought the case quite inexplicable—it could not be that the muscles were so affected as supposed by Mr. Pilcher, as the double vision was possessed by both eyes, and separately.

Mr. Dendy seemed to think there was something more mechanical in the cause than had yet been mentioned—as both eyes were affected it could not arise from the axis of vision being affected. He was inclined to think there was something wrong in the crystalline lens; it was known that in rock crystal the position of different strata caused double refraction; and it was possible there was some strata of the crystalline lens disordered. He could not think it arose from disease of the brain, from the general good health of the patient, and the absence of local symptoms.

Dr. Whiting thought, with Mr. Dendy, the disease was in the ball of the eye itself; he could not understand how disease of the brain could affect the vision of each separate eye, as in this case. Any changes in the humours might produce this effect.

Adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 20, 1836.

R. QUAIN, ESQ., IN THE CHAIR.

Paralysis of the Deltoid Muscle—Extraordinary Phenomena in the Pulse.

Mr. H. Johnson inquired the experience of the Society in cases of *paralysis* confined to the deltoid muscle. He was induced to ask the question, from having seen a few cases of the affection. The first case he had seen was that of a man in St. George's Hospital. He was a navigator, and had been exposed to cold. He was seized with a pain in the deltoid muscle, which, however, he did not employ any means to relieve, and it eventually ceased, but the muscle entirely lost its power and became wasted—there was no pain. Mr. Johnson employed the moxa, but the patient did not like the application and left the hospital. He had since seen one or two similar cases in St. George's. He had lately also seen the case of a gentleman, an officer in the Artillery, who had

been much exposed to vicissitudes of the weather; he was seized with a pain in the deltoid, which did not attract much of his attention; when one day he felt something snap in that muscle, and the arm had ever since been powerless. When Mr. Johnson saw him, he could only move his arm in one direction, about two inches from the side. There was thickening over the origins and insertions of the deltoid and coraco-brachialis. The pain was relieved by cupping, bleeding, and leeches, but the muscle was still powerless. Dr. Darwall, in a publication had written a paper on paralysis of the deltoid muscle, which had become so affected in some instances by exposure to cold, in others without any obvious cause. He (Mr. Johnson) was inclined to suppose the affection generally depended on rheumatic inflammation, and the treatment for such inflammation was most likely to be successful.

Mr. Mayo had related some cases of the affection occurring in the deltoid, serratus-magnus, and other muscles, and had stated he believed that inflammation had nothing to do with the disease. He (Mr. Johnson) differed from this opinion. He had found the most successful treatment to consist in local depletion, blistering, and afterwards friction; the hot vapour bath had also been of service.

Dr. Johnson said this affection was common on the Malabar coast; during the prevalence of the land winds, sailors frequently found themselves on rising in the morning, suddenly deprived of loss of power of some of the muscles; thus they called it, having "a stroke of the land wind." It was very difficult of cure: indeed, those who were attacked by it were generally invalided home—the muscles after a time shrink. He believed the cause of the affection to consist in external impression, which was confined to the part affected alone.

Dr. Peregrine had seen two cases in St. George's Hospital, similar to those detailed by Mr. Johnson. Sir B. Brodie had considered these cases to be dependent on some affection of the spinal marrow: blisters had been used in these cases without any benefit. Sulphate of zinc in large doses had been found of some slight benefit, but the patient had been removed into the country, as it was considered the air of the hospital would do him more harm than the sulphate of zinc would do good.

Singular Phenomena in the Pulse.

Dr. Johnson called the attention of the Society to some unusual symptoms which he had lately witnessed in a case of fever. A young gentleman from Harrow came home for the holidays, apparently in excellent health; he went to enjoy himself a short distance in the country with hunting and shooting. A few days afterwards, he was seized with a sharp pain in the head, which ended in a severe case of protracted fever. For seventeen or eighteen days he was not able to articulate a single word; his motions passed involuntarily, and the fever was of the typhoid character. The fever was protracted to thirty days, at the end of which time an amendment took place; the speech gradually returned; the fever left him, and he convalesced. At the thirty-fourth or thirty-fifth, the convalescence proceeding, his pulse came down to fifty-five, slow and equal. As he got more strength, the pulse rose gradually by five and ten beats daily, till it became 120; yet his appetite was good, bowels open, and indeed he had not a single complaint, except that he could eat more than was allowed him. His pulse yesterday was 120. His pulse before his illness was never noticed as remarkable, and during the period of the fever, had never risen beyond 110.

A long and animated discussion took place on the effects of elaterium when combined with mercury in organic diseases of the viscera attended with effusion.

Dr. Johnson related two cases in which he had found it of very great utility, so much so, indeed, as completely to remove the effusion for a considerable time, and was always successful in effecting this object when fresh collections took place; he seldom commenced with larger doses than one-sixth of a grain, and hardly ever carried it beyond one-fourth. Of course there would be some judgment required to ascertain the nature of the organic disease, before such a medicine was resorted to.

ROYAL INSTITUTION.

Friday, February 19, 1836.

On Magnetism as common to all Metals.

Dr. Farraday in commencing his lecture, spoke of the great importance of establishing general principles in natural philosophy. Before he entered on the subject of magnetism as common to all metals, though only supposed at present to be a property of two of them, he would throw out a few observations on certain general properties of metals. Metals were all more or less compact, yet what an extraordinary difference there was in them regarding their weight! Iron floats in mercury, platinum sinks to the bottom of it like a stone in water, while potassum makes not even a dimple on the surface of the mercury.

What might be expected when viewing the fusibility of metals? Mercury keeps fluid in a temperature considerably below that of ice, while it is scarcely possible to get heat sufficient to fuse platinum; tin melts when applied to the flame of a spirit lamp. If the metals were departed from, and we referred to rock crystal and pure albumen, it was found impossible to fuse them; yet there could be no doubt they were fusible substances, the means only to fuse them being wanted. Again, with regard to the combustibility of metals—iron is thrown into a state of combustion by sending a stream of oxygen

gas on it, when placed with lighted charcoal, and its combustion is accompanied with scintillation. Lead showed combustion of another kind, being accompanied with flame. Potassium burns in water. Platinum, gold, and silver had not yet been thrown into a state of combustion; it might, therefore, be said the law regarding the combustion of metals ceases here, but it is not so—the law is general, but we have not means of carrying it into effect. Now it was reasoning on facts of this kind that led Dr. Farraday to believe in the existence of the magnetic power in all metals. It was true that it had at present only been demonstrated to be possessed by iron and nickel; but there were some circumstances connected with its presence in those bodies, which it was of importance to notice. For instance, if a magnetized pin of steel was heated to a moderate degree, instead of acting upon the needles at opposite ends by attraction and repulsion, it becomes as a piece of soft iron possessed only of the power of attraction at both ends, and when heated to a red-heat, loses both its attractive and repulsive properties. Again, if a magnet was placed near a magnetic needle, it would repel it for a certain distance; but would the interposition of copper or any other non-magnetic metal destroy this power? When the magnet was placed in a sheath of red-hot iron, it also excited its influence on the needle; but when the iron became cool, the magnet ceased to act. Dr. Farraday therefore thought it possible, if he could cool down platinum and copper to a very low temperature, he might bring them within the magnetic influence; he had tried some experiments on the subject during last January, but at present without any effect. It was worthy of notice that nickel loses it magnetic power like iron by heat, but it requires only the temperature of boiling oil for that purpose; whereas the iron requires to be of an orange red heat. Dr. Farrady felt convinced that if we could cool down platinum and the other metals, we should bring them within the magnetic influence. Dr. Farraday concluded his highly-instructive and pleasing lecture by saying that it would be contrary to the simplicity of the laws of nature, that the magnetic power should be confined to two metals.

Case of Scirrhus Uteri, successfully treated with the Tincture of Iodine. By J. Erskine Pearson, M.D. of Fairfield District, South Carolina.

May 1st, 1833, I was requested to visit Edna, a mulatto girl, the property of D. Montgomery, Esq., aged about twenty-four years, whose general health had become so precarious as to disqualify her for any kind of business. On my arrival I was informed that she had not menstruated for a considerable length of time, was frequently complaining of uterine pain, accompanied with fluor albus—that she had from her puberty been unusually irregular in her menstrual function, and had frequently taken medicine, from a skilful physician, to little or no purpose. Knowing that this girl had been notorious for her indulgence in venereal pleasures, and that, although she had been married for some three or four years, her matrimonial connection had proved unfruitful, I suspected that she might possibly be labouring under organic derangement of the uterus. I accordingly proposed an examination, which was submitted to. The os uteri had a tuberculated feel, was indurated, tender to the slightest touch, and open. On withdrawing the finger it was slightly stained with blood. From the recommendation of eminent physicians, I was induced to put her on the use of cicuta, 3 grains three times per day, with $\frac{1}{3}$ of a grain of protoxide of mercury. This course was steadily pursued until about the 1st of June, and I saw her no more until the 25th, when her symptoms had somewhat improved. Thinking that I had given the hemlock a pretty fair trial, I concluded that I would next try the deobstruent powers of iodine, which was made into an alcoholic tincture, according to the formulary of Magendie. Of the tinctura iodini she took 5 drops three times per day, increased one drop each day to 20, in a glass of sweetened water. After giving her 2 oz. of this tincture, I thought it prudent not to continue its use longer, lest it might induce fatal emaciation. It was therefore laid aside, with the intention of resuming it again, if necessary, in the further treatment of the case, believing that a dangerous disease justified me in the use of what had been represented as a dangerous remedy. For the present I concluded to give her emmenagogues, with a view of establishing the catamenia. On the 1st of August she commenced taking pills composed of phosphate of iron, 5 gr., aloes soccot. 1 gr., myrrh. 3 gr., three times per day, and 20 drops of the tinct. lyttæ three times per day. This plan was continued for a few weeks, when her menses were restored. After the usual period was over, I omitted the emmenagogues, and ordered the tinct. mur. ferri. I heard no more from the case until about the 1st of October, when I was sent for in haste to visit the subject of it, as she was supposed to be dying. On my arrival, I found no deviation from health in the pulse, but from her appearance, as represented at the time, I judged that she had syncope. I ordered a hot pediluvium, and gave some sulph. æther, which soon restored her. I learned enough to induce me to suspect that she was breeding, and these suspicions were not long afterwards confirmed, as I was again called on in May to visit her, and was urged by her mistress,

who had uncommon solicitude for her, to give her medicine for dropsy. I was pained to hear such news, fearing that all my efforts had proved fruitless; but to my surprise, on examination, I found her far gone in pregnancy, and assured her that she would soon be cured of her dropsy, per vias naturales. My prognosis ultimately proved correct, notwithstanding such an event was so improbable and so unexpected, that her kind-hearted mistress could not be induced to lay aside her scepticisn on the subject, until Edna was delivered of a fine healthy boy, since which event she has enjoyed uninterrupted good health.

I forbear making any remarks on this case, believing that its characters, and the result of the treatment are so obvious, as to require no comment. Others may speculate; my only aim has been to lay before the public an unvarnished statement of facts, with a view of assisting in the common effort to curtail the misery of suffering humanity.—*North American Archives of Medical and Surgical Science.*

Sketches of Cases. By Wm. N. Baker, M.D. Lecturer on Anatomy and Physiology, Baltimore.

CASE I.—*Purpura Hæmorrhagica.*

JOHN BEECHER, aged 20, of a nervo-lymphatic temperament, called for advice on the 9th of March. He complained of profuse and constant hæmorrhage from the gums, which had troubled him for two days, and was preceded by slight rigors. He was a shoemaker's apprentice, and worked in a confined and ill-ventilated alley, sleeping at night in a small garret-room, with five or six of his fellow labourers. His tongue could not be examined, being constantly covered with the oozing blood; his pulse was irritable and excited. Salts and antimony were directed in decisive doses; iced drinks, an astringent gargle, low diet, and confinement to his bed.

March 10th. Patient no better; had bled prodigiously during the night; his tongue was coated, his pulse tense, and tenderness was manifested on pressing the epigastric region. The medicine had acted freely. The patient was anxious to get up, and, to my surprise, exhibited but little debility, notwithstanding the excessive loss of blood. I determined on opening a vein, and on raising his sleeve, observed in the creases of his arm extravasated blood, of a dark venous character. On further inspection, numerous petechiæ, looking like flea-bites, were seen on the arms, chest, and other parts of the body. A vein was opened, however, and cautious attention directed to the pulse: twenty ounces of blood were taken before the pulse or the patient acknowledged its loss. Ice was ordered, and the ice gargle continued. 9 P.M. Patient better; the hæmorrhage continues slightly; pulse calm. Prescribed, ℞. Gum opii, acetat. plumbi, ā ā gr. ij. The blood which was abstracted in the morning did not separate completely, but presented a dark, thin, jelly-like appearance.

11th. Patient better; hæmorrhage ceased; directed seidlitz powders occasionally, and as soon as practicable, a visit to the country. He called a month afterwards, to report himself completely well.

Remarks.—The detail of the treatment in this case is of but trifling importance, and I am persuaded might have been conducted much better. The main point is the general principle to which the disease yielded. The remedies employed were decidedly antiphlogistic. The case certainly wore an alarming aspect, and the loss of blood was so great, that I am unwiling to publish an estimate of its amount. Purpura hæmorrhagica has been conceived by some to be a disease of debility, by others inflammatory in its character. It might seem unwarrantable to generalize from a single case. But it occurred to me, that the confined and tainted air of the alley, the scanty diet, the sedentary life, the crowded garret, had so impaired the nutritive function in Beecher, as materially to impoverish the blood—the whole system was weakened and relaxed by the same cause. A chill and a fever came on, and the force of the circulation was competent to throw this thin and dissolved blood through the non-resistant capillary tubes—non-resistant, because weakened and toneless under the operation of the remote causes. Two indications were then to be fulfilled—to subdue the unnatural force of the circulation, and to give tone to the general system. I saw no evidence to sustain the opinion of some, that this disease consists in an inflammation of the venous radicles.

CASE II.—*Calculus in the Duct of the Submaxillary Gland.*

Mr. M— was seized with a violent acute pain under the right jaw. The submaxillary gland was enlarged, hard, and painful; the tongue was swelled, and thickly covered with a tough white fur; the uvula injected and relaxed. The pain became excruciating in the side of his head and neck. He was bled largely from the arm, leeched freely, purged, and put upon antimonials. 10 P.M. Patient no better: ordered, ℞. Pulv. Dover. gr. xv, and a hop poultice. On the next morning, a calculus, as large as a small sized bean, was seen engaged in the mouth of the duct of the submaxillary gland. Its removal put a period to the patient's sufferings, which were intolerable. The constitutional symptoms were very severe.

CASE III.—*Abscess and Ramollissement of the Corpora Striata.*

The history of the following case is kindly furnished by my friend Dr. F. Chatard, the attending physician, to which I have added the autopsy.

"Alice M'Mahon came under my care about three years ago; she was then labouring under an affection of the heart, which was clearly indicated by the laboured and tumultuous action of that organ, and the extreme irregularity and intermittance of the pulse. She was treated by venesection frequently repeated, and the use of tinct. digitalis, beginning with six drops every three hours, and increasing the dose every third day. This was continued for upwards of six months, with marked benefit and almost total cessation of the palpitation of the heart, which had been heretofore very frequent. She laboured frequently under catarrhs, and complained often of pain in the chest. Some months before I saw her, she was under the care of another physician during a severe catarrhal affection. For the last twelve months previous to her death, her health had been pretty good, with the exception of one or two attacks of palpitation, attended by great difficulty of breathing; this was relieved by venesection. Three or four weeks before her death, she was seized with convulsions. Not being at home when sent for, another physician was called in, who bled her freely. I did not see her until next day, when I found her in the following condition:—total loss of speech—quite conscious and mind sound—paralysis of the right arm and leg, as well as the right side of the face—the tongue, when protruded, did not deviate to right or left, and appeared perfect in its movements. Finding her pulse strong, I drew a large quantity of blood from the arm. This produced no relief. Blisters, sinapisms, and stimulating embrocations, were employed. The bowels were kept open. The nux vomica was employed at a later period. Under this treatment she recovered the partial use of her leg, the arm remaining the same. About a week or ten days before her death, she spoke a couple of words, but could not repeat them. Three or four days before her death she recovered her speech, and spoke, although with difficulty. On the day previous to her death, I saw her in the morning, and conversed some time with her; she did not complain of any pain, and was cheerful. Her speech was still embarrassed, but sufficiently distinct. That night I was sent for in great haste, and found her labouring under symptoms of apoplexy. She was bled freely without any relief, and expired the next morning."

Autopsy.—The frame of Alice M'Mahon was large and masculine. The amazonian proportions of the body, strongly contrasted with the blanched pearly hue impressed by months and years of suffering and disease. On opening the thorax, the only abnormal appearance was presented by the heart. Considerable deposites of cartilage were seen on the semilunar valves. The cranium having been removed, the pia mater was found somewhat injected, and the full cerebral veins wore an aspect by no means unusual. The medullary substance was quite vascular. But the corpora striata were the seats of more interesting disease. The corpus on the right side was softened, and of a dark ashy colour. On the left side, the ramollissement was more extensive, and shaded away into the optic couch and anterior lobe of the cerebrum. The softened structure being carefully removed, a cavity was entered, occupying the centre of the striated body. Its walls were well defined, and its area was partially occupied by a thin fluid composed of the broken down medulla, tinged here and there with the carmine of the blood, and not unlike a mixture of strawberries and cream.

We observed nothing else of note in this examination.

CASE IV. *Abscess of the Corpus Striatum, and extensive Sanguineous Effusion on the base of the Brain.*

I regret that a detailed history of the last indisposition of Mr. T—— cannot be procured. He had been ill, and complained principally of pain in the head. Large bleeding and other means were directed by the able attending physician, and Mr. T. apparently recovered. For several days he had resumed his customary exercise. He took a hearty supper and a bottle of old porter, and went to bed. In the night the family were roused by the groans of this gentleman, who was found by his physician in a condition of profound apoplectic coma. Notwithstanding the speedy and large detraction of blood, the brain was overwhelmed, and the patient sunk.

Autopsy.—I removed thecranium in the presence of my friends, Dr. Steuart and Professor Dunglison, the attending physicians. The brain was firm. Both the meninges and cerebral substance were much injected. Several ounces of blood were effused on the base of the brain. The left ventricle was distended with serum, and a small quantity was found in the right. In the corpus striatum on the left side, we found an abscess, which certainly was not a recent affair. The walls of the abscess were softened, and the ramollissement extended beyond the median line. The convalescence of Mr. T., while disease was revelling in the very midst of this most delicate of structures, seems, indeed, surprising. This extensive excavation of the striated body, without the loss of any faculty of the mind, and without involving in its sympathies

any of the organs necessary to life, would lead us to conclusions not very reputable to the functions of the corpus striatum in the animal economy.—*North American Archives of Medical and Surgical Science.*

HISTORY OF MEDICINE IN CHINA.

(*Concluded from p.* 19.)

"*Medicines.*—Hydrargyrum, *i. e.* Mercury, from 'water' and 'silver,' is exactly the etymology of the Shwuy-yin, 'water, or fluid silver,' of the Chinese.

"The elaborate author of the Pun-tsaou-kang-muh states, that he does not know when it first began to be taken inwardly. However, it is now, he says, a thousand and seventy-five years ago, since it became famous in China.

"There was a Prince of the Tang dynasty, who lived about A.D. 745, and who desired to procure the Elixir of Immortality. He conceived the vain wish that man should not die! and he had a statesman who aided his folly, and who expected, 'from preparations of mercury,' to obtain Puh-sze-che-yoh, 'the medicine of immortality.'

"This man took mercury, not to cure disease, but to ward off death; but in four years, from commencing the experiment, he died!

"The cases in which mercury is recommended in medical Chinese writings are few—the details of its mischievous effects are many. Its application to the head is, above all other uses of it, most deprecated: as it is judged most injurious to the brain and to the bones. And it is confidently believed, that it finally destroys the generative faculty both in men and women.

"One of its most legitimate uses is as a vermifuge, or anthelmintic; and in diseases of the skin which arise from animalculæ.

"The quacks of Canton employ a most powerful but dangerous remedy for the venereal disease, which is well known by the name San-sëen-tan, 'the Triad Angel Elixir.' It is composed of Shwuy-yin, mercury, King-fun, a sublimate of mercury, in powder, Pe-shih, or, as it is otherwise called, the Sin-shih, which is arsenic: these three are thrown together and sublimed, which result constitutes the elixir of the three angels.

"In Canton, the Te-tow-kih, barbers, learn surgery, to cure the venereal disease: and with these barber-surgeons the above-named elixir is a favourite remedy."

Case of Salivation from the administration of Iodine. By Dr. B. Mackall, of Calvert County, Maryland.

In September, 1834, I was called upon to prescribe for Mrs. W., who was labouring under an enlargement of the spleen. This lady was of what is denominated a bilious temperament: lived in a malarious district: and had, as a matter of course, been subjected to frequent salivation. Two months previous to my being called to her, she had suffered a slight attack of remittent fever; for the cure of which she had been profusely salivated.

When I first saw her, the case presented the following symptoms:—Her tongue was clean and moist, and, except a slight degree of redness around the border, presented no morbid appearance. Her pulse was small, frequent, and irritated; appetite good, bowels regular, and evacuations healthy. Her spleen filled the whole left hypochondrium, and was extremely hard. Under these circumstances, I administered the tinct. iodine, in doses of eight drops, thrice a day. In four or five days from the commencement of this course, her tongue became furred, her gums very sore, and a most profuse ptyalism took place, accompanied with strong mercurial fetor. The use of the iodine was suspended for two weeks, in which time the ptyalism ceased entirely. In a few days I resumed the use of the remedy, with the same result, but in a very much slighter degree.

The opinion which I formed at the time of the case was, that the iodine, by increasing the activity of the absorbents, had caused a portion of mercury to be taken up, which had been lying dormant; and I still think that the ptyalism could have been produced only by the absorption of mercury.—*North American Archives of Medical and Surgical Science.*

MEETING AT THE COLLEGE OF PHYSICIANS.

The first Public Meeting of the Royal College of Physicians took place on Monday last, and was attended by the Prime Minister, Lord Melbourne, the Archbishop of Canterbury, several of the Judges and other distinguished characters, and a great number of the profession. Sir H. Halford read a paper on the Piety of many of the most renowned British Philosophers in their last moments; among whom, he mentioned the names of Locke, Boyle, Newton, Addison, Johnson, &c.

The composition and style of the paper were chaste and elegant, and the crowded assembly heard it read with deep attention and much pleasure.

BOOK.

An Essay on the Laryngismus Stridulus or Croup-like Inspirations of Infants; to which is appended Illustrations of the General Principles of the Nerves, and of the Functions and Diseases of the Par Vagum and its Principal Branches. By Hugh Ley, M.D., &c. &c. 8vo.

THE

London Medical and Surgical Journal.

No. 6. SATURDAY, MARCH 5. Vol. I.—(1836).

CLINICAL LECTURES
BY PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Case of Ascites—Action of Elaterium—Use of Muriate of Iron—Case of Rheumatism—Metastasis to the Heart—Two Cases of Paralysis caused by Lead—Case of Paraplegia—Tetanic Spasms, caused by Large Doses of Strychnia—Successful use of Strychnia.

Gentlemen—I have a few observations to make upon a case of ascites, which has been treated very successfully; it occurred in a man (John Thomson) ætat 47. He was admitted into the hospital on November 14, 1835. The following is the history of his symptoms: painter and glazier, of sallow complexion, and rather full habit of body. Has been accustomed to drink large quantities of malt liquor. About a year ago, he was first troubled with difficulty of breathing and palpitation of the heart, which was increased by any exertion. He has been very subject to colica pictonum, having been attacked by it six or seven times. Six months ago he lost his appetite—was very much troubled with flatulence, and slept very badly at night; about this time he first perceived a swelling in his belly and legs; the swelling in the latter was increased towards the evening; his urine was not diminished in quantity, but it deposited a cloudy sediment. Two months ago he received a violent blow across the region of the kidneys, since which the swelling of the abdomen has very rapidly increased, and he had a great thirst.

Nov. 14. Fiat paracentesis abdominis.

℞. Elaterii, gr. i;
Micæ panis, q. s. ut ft., pil. vj. quarum capt. j sexta quaque hora.

℞. Ung. hydrarg. fort. ℥ ss;
Camphoræ, ℥ ij;
Olei olivæ, ℥ i; ft. ung. infricand. abdom. o. n. maneque.

He was tapped to the amount of nineteen pints.

18th. Augeatur elaterm ad gr. 1-5th pro sing. dos.

23rd. Infric. ungm. bis quotidie.

Habt. lactis Oij quotidie.

About this time his mouth began to get sore.

28th. Ungm. alterna nocte utendum.

℞. Tinc. ferri mur. *m* viij;
Aquæ, ℥ i; ft. haust. ter in die sumendus.

℞. Sol. sodæ chlorureti, ℥ iij;
Aquæ, Oss. ft. lotio sæpe tenda.

His mouth is very sore, and his breath fetid; he is salivated to the amount of about a pint and a half daily.

30th. His mouth is much the same. The abdomen is nearly of the natural size.

Omittatur unguentum.

℞. Haust. sennæ comp. ℥ j;
Tinct. jalapæ, ℥ j—pro re nata sumat.

Dec. 4th. Continues to improve.

7th. Much better; the abdomen is of the natural size, but he is very weak; breath has nearly lost all fœtor. Ordered to have full diet.

17th. Contin. ferri mur.

Discharged quite well on Dec. 21st.

You see, gentlemen, that in this case the accumulation of fluid very much increased after the blow which the patient received in the region of the kidneys. I ordered the operation of paracentesis to be performed immediately after his admission into the hospital, and nineteen pints were drawn off.

I have observed, that in all cases in which the kidneys may be considered the cause of the disease, the habit can sooner be brought under the action of mercury, than when the liver is the decided cause of the dropsy. In this case the effusion recurred to a small degree after the operation; but there was no appearance of any further deposition of fluid after the habit became affected with the mercury: the mouth was very sore, and a solution of the chloride of soda was used to wash it with.

This case is very instructive. It is another illustration of that truth which I have al-

ways endeavoured to impress upon your minds, namely, that tension must be relieved before employing the means of exciting absorption; and I am certain that the more cases you may see, you will be the more convinced of the great necessity of relieving the tension, before having recourse to other remedial measures. I am satisfied that had not the operation of paracentesis been performed, we might have used the elaterium, and other medicines, for six or eight weeks, without producing any beneficial effects. I believe that in nine cases out of ten, it is not the absorbents that take up the fluid, but it is the healthy action given to the capillaries, preventing further effusion, whilst the absorbents merely remove that already deposited. The elaterium acts chiefly on the intestinal exhalents, and by thus unloading the capillary system, enables them to transmit their contents properly: consequently, by whatever can produce a powerful effect on the capillary system, we are to produce any beneficial effects as far as the fluid is concerned.

In many cases we shall not succeed very well, unless we take an opportunity of strengthening the patient, by improving the tone of habit without stimulating; and I know of nothing which is so beneficial, in such cases as these, as the tincture of muriate of iron. The result in this case, as in several others, which we have had in the hospital, has been very favourable; and the recovery has occurred in a short time.

We shall next proceed to a case of

Rheumatism with Metastasis to the Heart.—Ellen Coru, aged 22, admitted November 16th, 1835; a servant; of the sanguine temperament; and of rather plethoric habit of body.

On the thirteenth day of the present month, she was attacked with a burning heat all over the body, great langour and lassitude, and pain in the chest increased on taking a deep inspiration, having worn a damp gown on the preceding day; but she had no chilliness nor perspiration; she had always menstruated regularly, and the function had commenced the last time, on the day previous to wearing the damp gown, after which it was suppressed. On the following day (14th) she had violent pains in the calves of the legs, which extended up to the knees and hips, and down to the ankles; the shoulders and right elbow were affected also, all which joints she says were swollen, red, and exceedingly hot and painful; she employed fomentations of poppy heads with but temporary relief. Her feet and legs up to their middle have been accustomed to swell towards the evening, after greater labour than usual, and have been swollen in the mornings before rising. Yesterday she had great pain in the back.

At the present, she complains of great pain in the shoulders, right elbow, back, hips, knees and ankles; the pain is much increased at night; the ankles particularly are swollen, not much redder than natural, and very hot. The pulse is 90 and full; the respiration is natural, with the exception of very slight pain over the front of the chest, on inspiring deeply; the skin is hot and dry; she has not perspired; the mouth is dry; the tongue is covered with a whitish brown fur; she has no appetite; her thirst is rather urgent; the bowels are opened by medicine which she has already taken; the urine is large in quantity, and high-coloured, but depositing no sediment. She was never afflicted with rheumatism before. Her father is much afflicted with it. Percussion and auscultation detect no morbid sounds in the seat of the pain in the chest.

V. S. ad ℥ xvj. Calomel gr. iij. h. s. s; habt. haust. sennæ comp.; primó mane si opus sit. Low diet.

Nov. 17th. The pain was slightly relieved by the bleeding; the blood is very much buffed and cupped; the pulse is 86, and not so full; the bowels have been opened freely; the tongue is furred still.

℞. Vin. colchici, ʒ ss;
Magnes. carb., gr. x;
Aquæ ℥ j; ft. Haust. 6ta quaque hora sumendus.

℞. Hydr. submur., gr. v;
Pulv. Doveri, gr. x omni nocte sum.

Dec. 18th. The bowels have not been opened very lately:—the pain in the ankles is very great.

℞. Hydr. Submur. gr. v.; quamprimum sum. et unâ horâ postea capiat haustum. Sennæ cone.

℞. Antimonii tart. gr. viij;
Aquæ distill., ℥ viij. Dosis cochl. ampl. ij. 3tia quaque hora.

20th. She is still in great pain and the wrists are now affected; she has no appetite, the thirst is very great; the bowels are open, the tongue is much furred; the pulse is 90, and full.

V. S. ad ℥ xij.

Augeatur antimon. tart. ad gr. x.

She rests very badly at night; she does not perspire.

℞. Morph. mur. gr. ss. hora somni sumend; et repetatur medio noctis si opus sit.

23rd. The pain in the ankles is much relieved; but the swelling, heat, redness and pain of the wrists, and joints of the fingers are very great; the pulse is still full; the skin is hot and dry; she has not perspired; the tongue is still furred; she has no appetite; her thirst is great; the bowels are open; the urine is still large in quantity, and rather high-coloured; she slept better after the pills, but during the last two nights she has not slept much, from the pain in the

joints; the medicine has made her vomit but twice since the dose of the tartarized antimony was increased.

V. S. ad ℥ viij.

Augeatur antimon. tartariz. ad gr. xij sum. mist. 2nda quaque hora.

℞. Hydr. submur. gr. j;
Pulv. colchici, gr. viij;
—— opii gr. iss. *m* ft. pulv. hora somni, omni nocte sumend.

25th. The pulse to-day is 120, and expanded; the skin is warm and moist; she perspired during the night; the tongue is furred; anorexia; the bowels are open; and the urine is large in quantity, and of natural colour; there is no sediment.

Augeatur opium ad gr. ij h. s. o. m. sum.

27th. The pain is much less in the various joints, and not so much redness, heat, and swelling in them; she now complains of pain immediately under the left breast, which is much increased by inspiration, and on pressure; the pain darts through to the shoulder on that side; there is no pain on pressing up towards the diaphragm, below the cartilages of the ribs; these symptoms commenced last evening, and she was very much troubled with palpitation of the heart, and pain in its region, owing to which she obtained but little rest; the pulse is 124 and full; the respiration is rather shorter than natural; there is evidently an effort to avoid deep inspirations, which cause very great pain. The skin is warm and quite moist; she has no appetite; the thirst is very great; the tongue is much furred and dry; the bowels are open; the urine is still large in quantity, but high-coloured, and there is no sediment deposited.

Appl. c. c. ad ℥ x super regionem cordis statim.

Continuentur medicamenta.

Nov. 30th. The pain in the præcordial region is much relieved by the cupping; the pain in the joints is diminished; she has a slight return of appetite; the thirst is not quite so urgent; the pulse is not so full, and 115; the bowels are open; the fæces are thin, slimy, and of a yellow colour; she perspires freely; she does not pass so much urine, which deposits no sediment.

Omittatur antimon. tart. Continuentur pilulæ.

℞. Quininæ sulphatis gr. ij;
Acidi sulph. dil., ℥ vj;
Infusi cinchonæ, ℥ j *m* 2nda quaque hora sumend. Middle diet.

Dec. 2nd. She is improving still. The fæces are slimy, the tongue is furred towards its base, and redder than natural in the centre and at its tip.

Cont. med.

4th. She is much better; the fæces are still slimy; the pulse is 88, and natural; she complains of slight pain in the shoulders.

Augeatur quininæ sulphas ad gr. iij.

7th. She does not rest very well at night

℞. Vin. Colchici *m.* xv, morph. mur gr. ss;
Acidi hydrocyanici, ℥ j;
Aquæ, ℥ j *m* ft. haust. omnie nocte sum.

9th. She is quite free from pain; she is very weak, and there is great tremor of the limbs, and the tongue is slightly furred; the appetite is very good.

Continuentur sulph. quininæ,

Augeatur vin. colchici, ad *m.* L.

Allow her to have a mutton chop daily.

Dec. 11th. Continues improving in every respect.

Continuentur med.

14th. She has a return of the pain underneath the left mamma, which is now increased by pressure upwards, below the cartilages of the ribs; she has had frequent palpitation of the heart through the night, coming on without moving, or any evident cause; the pain darts through to the shoulder, and she feels it down the inner side of the arm, on that side to the elbow joint; she complains of slight pain in the shoulders, and right hip; but there is no heat, swelling, or redness in these joints. The pulse is 88, and rather sharp and full; the respiration is shorter than natural; a deep inspiration much aggravates the pain below the left breast; the skin is warm and moist; the tongue is furred and dry; the appetite is impaired; the thirst is rather great; the bowels are open; the urine is natural; she has some pain at the lower part of the back and abdomen; she ought to have menstruated a fortnight ago.

On auscultation, the bellows sound may be heard over the region of the heart.

Ordered to omit the sulphate of quinine, colchicum, and mutton chop, and to resume the low diet.

Appl. empl. lyttæ lateri. sinistro.

℞. Hydrarg. submur., gr. i;
Antimon. tart., gr. 1-4th;
Extra. opii., gr. i. M ft. pil. 6ta quaque hora sumend.

15th. She has very little pain, but on taking a deep inspiration; pain is caused by pressure underneath the cartilages of the ribs; the palpitations have been rather more troublesome during the night; the bellows sound is still heard plainly.

17th. The pain is much less severe; the respiration is much more easily performed; the pulse is 84, and rather full; the skin is warm and moist; the tongue is slightly furred and moist; the appetite is not very good; thirst not great; the bowels are open and urine natural. The catamenia have not appeared.

18th. Last night she was attacked with excruciating pain in the epigastric region, which continued for about two hours.

Morph. mur. gr. ss. statim. sum.

was prescribed; she has not had any return of the pain, and slept pretty tranquilly after the anodyne. There is slight pain in the epigastrium on pressure. She complainsof but little pain in the shoulders, and other joints. Appl. emp. lyttæ. epigastrio.

21st. She has not experienced any return of pain in the epigastrium. The shoulders and hip are rather painful.

V. S. ad. ℥ ij.

22nd. It was afterwards ascertained that the catamenia had appeared, and she was not bled. She is not in so much pain to-day.

26th. She is going on very well. Her bowels are not open.

Habt. ol. ricini, ℥ j statim. sum.

In this case, after the use of tartar emetic and bleedings, I began to administer the sulphate of quinine; but metastasis to the heart was produced, and it was necessary to leave off the sulphate of quinine. This symptom was acted upon with as much energy as possible; the patient was cupped and bled, and the tartar emetic again resorted to; after which the woman improved.

With regard to metastasis of acute rheumatism:—out of a great number of cases treated in this manner, only one or two were affected by metastasis; if we look at the influence of cinchona bark upon the body, we have no right to conclude that the metastasis was the consequence of this remedy, but of some idiosyncrasy or peculiarity. Another individual, however, to whom it was administered, has had metastasis in the same manner. He had an attack of acute rheumatism in the hospital, and was treated in the usual way; the sulphate of quinine was administered, and asthma and dyspnœa recurred; the remedy was omitted, and he got well a second time; when he was getting well again, after seven or eight days, I began the sulphate of quinine again, and the same attack was the result.

In acute rheumatism, metastasis is very likely to occur in cases where topical applications have been resorted to, such as embrocations of turpentine, ammonia, &c.; but this is not the case in chronic rheumatism; in that disease nothing is more useful than topical applications; the question therefore arises, how does it happen that in acute rheumatism metastasis occurs, and not in chronic rheumatism? There is but one way in which I can satisfy myself; in acute rheumatism there is a tendency to translation from one surface to another; the cause we are not aware of; we only know that by one characteristic of this disease, when a topical application is employed, and when a kind of counter-irritation is produced over the diseased part, and when the state of habit remains, the natural effect is, by taking off the diseased action from the part, and the tendency to diseased action remaining, its occurrence in another part; consequently, although we relieve the inflammatory affection in the part immediately affected, we leave the disease to produce similar symptoms in another part.

Now, this is not the case in chronic rheumatism. There is in all diseases often a state of habit set up which is as powerful in maintaining diseased action as the disease itself. The counter-irritation produced when the disease has existed a long time, destroys this habit, and proves beneficial. Thence it is a point of considerable importance not to employ topical applications in the acute form of the disease; and the reverse is the case in chronic rheumatism. I know of no application so useful as the tincture of iodine, if this be brushed over the parts. It requires some degree of courage to be exerted by the patient, but the relief is great, and they have no objection to the further application of it, after having been once used.

Paralysis from Lead, and Paraplegia.

We have had two cases of paralysis from lead, and one slight case of paraplegia; the mode of treating these three cases has been nearly the same — two with beneficial results, and one with no benefit as yet. The name of the patient who has not yet received any relief from the treatment, is Wm. Padley; he came in with paralysis in a certain degree in both extremities—the hands dropping, the extensor muscles having lost their power. In this case the strychnia, after the bowels were freely opened, was given to the amount of 1-10th of a grain at first, and continued until a grain and a half was taken every four hours; but instead of producing any beneficial effects, as usually follows, it affected the patient's head; he had now tetanic convulsions or twitchings; he suffered in general health, and had several of the symptoms of apoplexy. I was of opinion that perhaps the best mode was to fortify and bring up the powers of the habit generally. I have consequently been giving him the carbonate of iron, and he has been improving greatly under that plan: he is in fact getting fat, and losing the sallowness of the complexion. Still the disease for which he came into the hospital remained, and I was of opinion that it might be useful to stimulate the extensor muscles. I had two blisters applied to the back of the wrists and arms and the surfaces were sprinkled with a powder composed of ten grains of magnesia and one grain of strychnia, and the beneficial effects upon the extensors were evident; he can now separate the fingers; although the wrist and one hand are much improved, the power in the other is not increased in a similar degree; therefore, I have conceived right, believing from the long standing of the disease, the extensors not having been used and the hands quite flexed, that it greatly depends upon the disease of the extensors that the hands should be kept in a state of extension, so as to allow the muscles to re

cover their elastic power. There is a very similar case in the hospital still; it is not quite so severe; the man is a painter and glazier, and like the last patient too, has had several attacks of colica pictonum; he is taking the strychnine, has had tetanic spasms, and is fast improving*. There is a case of paraplegia I must just mention; it occurred in a man—Dennis Connor, aged 46; it was a very slight case; he had worked in a lead manufactory, and he has had something like colica pictonum; he began with strychnine, dissolved in acetic acid, 1-10th of a grain every four hours; it was increased to the 1-8th, and a liniment of ammonia was rubbed in the loins. The strychnia was increased to 1-6th of a grain, and he had several severe attacks of tetanic spasms, and in a day or two walked very much better, and had considerable power over his extremities. As he suffered from the tetanic attacks, the dose was diminished. He went out on the 7th (January) quite well. In this case, as in all others, the tetanic affection was the most severe in the paralysed limb. It is a most remarkable fact—in almost all these cases, I find that by leaving off the medicine, the patient daily recovers, and finds greater and greater benefit. Often when I have requested the remedy to be discontinued for a short time, in consequence of the violence of the tetanic twitchings, I have observed that in two or three days afterwards, the patients have found much greater power in the paralysed limbs.

CLINICAL LECTURE,

ON A CASE OF

MEDULLARY TUMOUR OF THE FACE.

By PROFESSOR COOPER.

Delivered at the North London Hospital.

SESSION 1836.

Greater frequency of the Disease now than formerly—Diseases to which the Superior Maxillary Bone is liable—Remarkable Case of Exostosis, recorded by Mr. Abernethy—Operation as practised by M. Gensoul—Mr. Guthrie's Case—Case of Burn.

GENTLEMEN—I have to call your attention this morning to the case of Janet Anderson, aged 70, who was admitted into the hospital on the 6th of January of the present year, with a tumour on the left side of the face, of eight months' duration. She states that she had running from the left nostril for the last twelve months—the swelling began on the cheek about the malar tuberosity. She had been for eleven weeks in one of the metropolitan hospitals, where poultices were applied, and she took a large quantity of the solution of muriate of morphia. Her general health is good; her bowels regular; she sleeps pretty well at night. At present the tumour is very large, projecting in a remarkable manner from the cheek; there exists at the greatest convexity of the tumour, a large ulceration, of a whitish colour, and evacuated towards the centre; very, free venous-coloured hæmorrhage has occurred, at intervals, from the sore. At other points of the tumour there are several prominent points, distending the skin, which is of a purplish hue, soft and elastic. The eyelid of the left eye is much displaced by the distension of the skin by the tumour, and the lip on the same side is drawn downwards. There is the same kind of elastic tumour projecting from the hard palate on the interior of the mouth; the skin covering the tumour is very red, and fine vessels are observed creeping along its texture. She experiences great pain in the part affected; warm water dressing, with a proportion of opium, applied to the sore; she takes no medicine; full diet.

Feb. 4th. Has taken muriate of morphia and aconitum for some time, but with little or no effect; tumour gradually enlarging and projecting into the mouth.

Gentlemen, it seems to me very certain, that tumours both of the upper and lower jaw are infinitely more frequent at the present time than they were at the period when I was a student at St. Bartholomew's Hospital; for though I watched the surgical practice in that establishment altogether fourteen or fifteen years, I remember only three or four examples of severe and formidable tumours of the jaw-bones being admitted into it during that long space of time. The superior maxillary bone is liable to several diseases of very different characters; some beginning in the mucous membrane of the antrum; some in its bony parietes, and others in the sockets of the teeth. Sometimes, in consequence of inflammation of the lining of the antrum, the communication between this cavity and the nasal fossæ becomes blocked up, and the result is an accumulation of mucus in the antrum, followed occasionally by an expansion of the walls of this cavity, and at length by ulceration of the mucous membrane, and absorption of part of the osseous texture. A simple collection of mucus in the antrum is not, however, so common as one of pus. In an interesting case of the former kind, recorded by Sir Benjamin Brodie, he made an opening with a knife in the swelling above the gum, which opening continued

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* Both these patients left the hospital shortly after the delivery of the Professor's clinical lecture; the former left at his own request, to go into the country—he was nearly well; the latter was discharged cured.—*Reporter of London Medical and Surgical Journal.*

unhealed for ten years, during all which time the patient wore a stopper in it. In this way, at all events, the return of another accumulation of the fluid secreted from the interior of the antrum, was effectually prevented.

Besides collections of mucus, or pus, the antrum is subject to another disease, the peculiarity of which consists in the secretion of a concrete substance within it, presenting all the characters of adipocire.

The cavity of the antrum may also become the seat of polypi, and other tumours of the fibro-cartilaginous, medullary, and vascular-erectile kind. The latter, you know, were formerly described under the name of aneurism by anastomosis. The bony parietes of the antrum are liable to exostosis, caries, and necrosis; the first being generally an original disease, the latter two, secondary ones, resulting from previous inflammation and abscess within the antrum, excited by some other disease or accidental injury.

One of the most remarkable exostoses of the upper jaw, which I remember, is recorded by Abernethy in the Transactions of the Society for the Improvement of Medical and Chirurgical Knowledge. It assumed externally the form of a large saucer placed on the cheek, with the cavity outwards, its pressure having caused extensive destruction of the soft parts of the cheek, by ulceration and sloughing. Here there was no fibrous nor medullary tumour: the disease was an original one of the bone itself.

A few years ago I attended a woman who had a prodigious exostosis of the upper jaw bone, which by some surgeons who saw the case was suspected to be a fungous disease of the antrum. A careful inquiry into the history of the disease led me to suspect that it was an exostosis, combined with necrosis, keeping up a discharge of excessively fetid matter, not only from several fistulous openings in the gums and face, but also from the nostril. I showed the case to Mr. Lawrence, whose opinion coincided with mine, and the subsequent changes which have taken place, prove the accuracy of the view adopted by us; for the greater part of this bony tumour has been destroyed by necrosis, and been detached by the process of exfoliation.

The operation of removing the superior maxillary bone is sometimes rendered advisable by the growth of a fibro-cartilaginous tumour, or of a medullary tumour in it, provided the latter disease be entirely restricted to the antrum, and the patient's general health sufficiently good. Medullary tumours are alleged to be more common in the upper than the lower jaw bone: where, on the other hand, fibro-cartilaginous tumours are met with in greater number than those of the malignant kind. The determination of the nature of the swelling in either bone is always of considerable practical importance, because it influences the prognosis very materially, and forms one of the circumstances by which the decision for or against an operation is mainly regulated. The reason of this fact is, that malignant, medullary, and fungous tumours almost always destroy the patient, whether their removal be attempted or not, the growth generally returning in part; or, if not there, shewing itself in other organs. Still, however, if the disease be restricted to the antrum, so far as can be made out by the history and present appearances of the case, an endeavour to remove the disease by operation is justifiable. M. Gensoul, of the Hôtel Dieu, at Lyons, claims the merit of having first extended to operations on the superior maxillary bone the approved principle in surgery, that *amputation should always be performed in the sound parts, and not in the diseased ones.* This principle led him not to be content with attacking the morbid growth itself, as Desault did, or even with taking away a part of the diseased bone, as he contends had been done by all his predecessors, inclusive of Baron Dupuytren himself; but he was determined to aim at the removal of the whole of the superior maxillary bone. In this manner he knew that he should take away the whole surface from which the morbid mass originated: the only method which seemed to afford much prospect of a radical cure.

M. Gensoul was further encouraged to perform this operation by considering attentively the anatomy of the face. He saw that the superior maxillary bone was firmly fixed to the other bones of the head and face only at three points:—

1. At its nasal or ascending process, and the junction of its orbitor plate with the os unguis and os planum of the ethmoid bone.

2. At the malar bone, by its malar process, orbitary edge and plate, as far back as the spheno-maxillary sinus.

3. At the junction of the two superior maxillary bones, and that of the two palate bones.

As for a fourth point of attachment which is through the medium of the connection of the palate bone with the pterygoid process of the sphenoid, it readily gives way on pressing the upper maxillary bone downwards towards the mouth, after the other firmer attachments have been overcome by the cutting forceps or chisel.

No very large vessel is necessarily wounded; and if the trunk of the internal maxillary happen to be injured, it can be tied. In one of Gensoul's operations, and in that of Mr. Guthrie, the pterygoid branch of this vessel was cut; but the hemorrhage was soon suppressed.

As for nerves, the superior maxillary is the only trunk of importance exposed to injury; and one maxim, justly insisted

upon by Gensoul is, that in the operation the trunk of this nerve should not be roughly lacerated, but smoothly cut through with a sharp chisel or strong knife as it is passing under the orbit. After explaining the reasons which prohibited an operation on Janet Anderson, amongst which were the fact of the disease having extended beyond the antrum, the medullary nature of the tumour, and the advanced age of the patient, Mr. Cooper made some observations on a case of burn now under his care in the North London Hospital. The patient is a girl about twelve years old. The burn is situated on the left side of the chest, axilla, and great part of the arm, and answers to that form of the injury described by Baron Dupuytren, as the fourth degree of it characterized by the eschar extending through the whole thickness of the cutis. In this instance, the parts were kept for two or three weeks covered with flour, under which the eschars loosened very favourably; and cicatrization is now proceeding rapidly under common dressings. Mr. C. observed it would be necessary to keep the arm raised from the side, in order to prevent the limb being drawn down, and fixed close to the chest by the contraction of the granulations and of the new skin. With the view of hindering adhesion of the opposite surfaces together, in the armpit, pressure is made with a single dossil of lint at the angle between the point where the adhesion must begin, if it begin at all; according to the principles insisted upon by Dupuytren.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE V.

History of Male Obstetricians (continued).

Harvey described the state of the uterus before puberty, at the adult age, and after the climacteric period or turn of life, and shewed that it is only between the first and last ages, the organ is suited for the reproductive function. Thus impuberous girls have scarcely larger mammæ than boys; the uterus is small, white, and almost destitute of blood-vessels, and sometimes not larger than the top of the finger or a bean. In the same way, the mammæ, after the cessation of menstruation, are collapsed, the uterus is retracted, flaccid, pale, and exsanguineous; and women are liable to hæmorrhoids.

Aristotle observed that many chlorotic girls have the menstrual function increased by marriage, and the general health improved—a fact universally known to physicians.

Harvey observes, that the uterus is one of the chief organs which excites the sympathy that exists between all parts of the body. Every observant physician knows the numerous symptoms caused by the ascent, descent, perversion, and convulsion of this organ, and what stupendous aberrations of the mind, delirium, melancholy, mania, furor uterinus, &c. are excited, as if by enchantment, by affections of the uterus. Again, what a number of physical and moral changes are caused by puberty.

Our author next informs us that he knew a noble lady who had suffered from furor uterinus for ten years, from which she was cured by a descent of the affected organ, as the exposure to cold relieved it. He also knew a hysterical woman who had suffered from her malady for many years, and who was also cured in the same manner. He describes the contraction of the womb immediately after the expulsion of the fœtus and its appendages, the cause of the lochia, and the reduction of the organ to its ordinary size or nearly so, in fifteen or twenty days after delivery.

The lochia or puerperal evacuation is at first pure blood, it then becomes sanious, similar to the water in which flesh has been washed, and lastly it is ichorous. Women suppose that when the lochia is thin and watery, it is about to cease, and that the milk will be speedily secreted: thus that the nutritious fluid is transferred from the uterus to the breasts.

Nevertheless, such a molimen is not necessary in other animals, whose genital organs are perfectly restored and consolidated in a day or two. Thus we observe that the hare and rabbit, in the space of one hour after delivery, admit the male, and become again impregnated *.

Again, a hen, having deposited her egg, is immediately afterwards impregnated by a cock. Women alone have abundant menstruation and lochia, both of which evacuations are liable to many derangements. The latter discharge may be sparing, copious, or depraved. If the placenta be left behind, the lochia acquires an offensive and cadaverous odour; and the powers of the uterus becoming prostrate, sphacelus rapidly supervenes, and causes death.

If grumous blood or any thing preternatural remains in the uterus after parturition, the organ does not contract firmly, and its orifice remains open. "In such a case," says Dr. Harvey, "I have passed a finger into the womb and dislodged a concretion as large as a goose's egg, and relieved the patient. I have observed in some women the orifice of the womb so contracted after delivery, as to prevent the discharge of the lochia, which became putrid, and in despite of all remedies destroyed life.

"I attended a noble lady affected with fever, there being no flow of the lochia, the labia being tumid and inflamed, the orifice of the womb closed. I opened the orifice with a steel instrument, after using some force, so that it admitted an injection from a syringe, after which there escaped four pints of grumous, black, fœtid blood, which afforded immediate relief." Dr. Harvey relates a case of a lady who was sterile, but most anxious to have offspring. He observes, "I opened the orifice of the womb, when about two spoonsful of sanious fluid escaped. I considered there was an ulcer in the organ, and ordered injections of Roman vitriol (sulphate of copper) and finally restored the patient to health."

The puerperal purgation or discharge varies in different climates. It is reported that women in the new world remain in bed during the day after delivery, but on the next day follow their ordinary avocations. "I shall add," continues the author from whom I quote, "a remarkable example which was narrated by the illustrious George Carew, Count Totnes, and pro-consul of Munster in Ireland. A pregnant woman who followed her husband in the army, was seized during a march with labour; she receded into some shrubs and brought forth two infants, which she washed in an adjoining river. She then enveloped them in some rude covering, placed them on her shoulders, and walked, on the same day, with bare feet, twelve miles without any injury. On the following day Lord Deputy Mountjoy, who marched to Kinsale against the Spaniards, having heard of the case, was present with Lord Totnes at the christening, and was pleased to name the infants †.

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* This arises, in a great degree, from the peculiar connection which exists between the placenta and uterus, which is totally different from that in the human subject, and from the peculiar structure of the generative organs.—R.

† It is said to be the custom in many rude nations at the present period, for women to use ablution of themselves and their infants immediately after delivery, and then to pursue their ordinary avocations. I have heard of a soldier's wife, who was delivered in the house in which she and her husband were billeted during a march, which was a mile and a half from the town in which the greater part of the regiment was quartered for the night; and next morning she walked that distance without injury, and was placed on a baggage cart. I knew another soldier's wife who was delivered in Clonmell, travelled by the stage coach

The next section of Dr. Harvey's work is on ovology, and is entitled De Uteri Membranis et Humoribus. He gives an instructive description of the changes effected after conception in the inferior animals, and in the human subject. The accuracy of his conclusions will appear hereafter, when the subject of which he treats comes under consideration in its proper place.

His last section is on Conception. He does not expect that more deference will be paid to his opinions than to those of others, but he thinks he has a right to entertain his own conclusions. According to his observations, a woman is affected after the sexual act in the same way as the magnet affects iron. It is marvellous, where the generative faculty exists before coition, to what the active power of the male is communicated: is it to the uterus alone, or to the whole woman? or is it first to the uterus and then to the woman? For although it sometimes happens that women conceive, and have all the symptoms of conception, they do not bring forth a fœtus. It is also a fact, that some incubated eggs do not contain chickens in them. It is certain that the fecundating power of the male changes the moral affections and physical powers of the woman. It is reasonable to suppose that this influence acts on the uterus prepared for it, and then on the whole body (quemadmodum à turgentibus marium testiculis reliquo etiam corpori robur additur). Is the power communicated to the uterus, or to any particular part of it? "It is certain you find nothing in the uterus after coition, for the geniture of the male escapes or vanishes in a very short time, and the blood from the uterus, the circulation having been effected, returns by vessels."

It must be admitted, that unless the uterus is prepared for conception, all attempts are useless. But there are no positive signs of this state before the uterus exhibits a whitish layer on its inner surface. Our author proceeds to describe the development of the uterus, from the time of conception, in the inferior animals, and he offers some remarks on the generative or formative power. He contends that it is incorporeal, "not a spirit, a demon, not life (anima), or any thing possessing life, as various experiments and observations made by me," fully prove. He then alludes to the similarity of dispositions, corporeal organs, and hereditary diseases transmitted by parents to their offspring, and that the divine mind of the Creator is impressed on human conceptions. He contends that the brain is the organ of conception; every thing material being removed, mechanism is set in action by the mind, but the uterus or ovum is the organ primarily affected. He goes on to observe, that it is impossible to determine the mode of action of the brain or mind, and uterus or ovum on generation, or what is the immaterial cause or principle which effects reproduction. He supposes there is a vapour from the male seed, which effects impregnation, and this he terms the *aura seminalis*. Such are the principal conclusions of the illustrious Harvey, which are omitted by British obstetric writers, though they ought to be known to every obstetrician.

It is evident, from the preceding extracts and brief analysis of Dr. Harvey's work on generation, that he was an experienced practical obstetrician.

From the period at which Harvey's work appeared (A.D. 1651 to 1700), there were many eminent obstetric practitioners and authors, among whom were the following, the most distinguished of whom deserve especial notice. Zacutus, of Portugal, in 1651; Dr. Chamberlen, of London, in 1665; Primrose, a Scotchman, at Bourdeau, in 1656; Wharton, of England, in 1665; Heredia, of Spain, in 1667; Charlton, mayor of Oxford, Willis, of London, Hoffman, of Germany, and Menzot, of Paris, in 1668; Mauriceau, of Paris,

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to Kilkenny, about twenty-seven Irish miles, and who, after her arrival, was delivered of a second infant. She suffered no serious inconvenience from the journey.—R.

in 1670; Willughby, of London, Needham and Wharton, of England, and the celebrated N. Highmore, of Oxford. It is worthy of remark, that Astruc dates the publication of Mauriceau's work in 1694, whereas it was approved of in Paris in 1668, and was translated into English, by one of the Chamberlens, in 1672; in 1674, De la Boe, or Sylvius; in 1676, Muerdrac, of Frankfort; in 1677, Cellarius, of Halberstad; in 1678, Sorbait, of Vienna; in 1680, Gruling, of Frankfort; in 1682, Etmuller, of Leipsic; in 1683, the illustrious Sydenham, the English Hippocrates, who wrote on puerperal diseases, and on diseases of infants; in 1684, Garmer, of Hamburgh, Dolee, of Frankfort, and Sprye, of Venice; in 1685, Carleton, of London; in 1691, Pfiser, of Aldrof, Sommers, of Rudelstad; in 1694, Connor, of Ireland; and in 1696, Fravendorffer, of Moravia. Such are the principal writers on obstetric medicine in the seventeenth century, but to these we may add, Hilder, Diemerbroeck, Gelée, Bonaciolus, Montain, Rousset, Boucher, Mercurius, Ronheuisen, Portal, Peu, Sonlingen, Muralt, &c. M. Astruc mentions the names of many other writers on diseases of women, but as they do not include practical obstetricy, I omit them *.

The chief obstetricians of the second half of the seventeenth century were Mauriceau, Viardel, Fournier, Portal, and Peu, in France, and the Chamberlens, father and three sons, Culpeper, Salmon, and Woolveridge, in England. Mauriceau was the most eminent writer of this period, and his works rapidly passed through seven editions. He was obstetrician to the Hotel Dieu, and had immense practice in the French capital. His works contain many admirable remarks and observations on pregnancy, parturition, expulsion of the placenta, and puerperal diseases†. He insisted more strongly than Paré on version by the feet. He maintained, that in all cases in which the infant presented any part of its body from the shoulder to the heels, the best practice was to bring it down by the feet. When the feet presented, it was better to bring them down than to attempt delivery by the head. When the side of the head presented, he passed the hand along it, over the shoulder to the feet. He knew that in face presentations delivery was not impossible; that descent of the umbilical cord required version or extraction of the fœtus; and he also advised the abdominal bandage after delivery. His bandage for extracting the head has been replaced by the forceps, and his fork for elevating the tongue by a more appropriate instrument. There were, however, many errors in his work, as that the womb became thin during pregnancy, that the joints of the pelvis never yielded, that the Cæsarean operation ought not to be practised until after death, and that it never succeeded on the living, as stated by many impostors. He advised the placenta to be brought away immediately after the birth of the infant, and it and the infant ought to be brought near the fire, to cut and tie the navel cord.

Mauriceau was passionate, and most abusive of his contemporaries. He denied the Graafian theory of generation, and the possibility of tubal or extra-uterine gestation. He invented a most inefficient instrument for extracting the infant's head, which he called a *tire-tête*. His work was, on the whole, very much esteemed, and translated into English by Dr. Hugh Chamberlen, 1672.

A contemporaneous author was Viardel, who, though neither a doctor in medicine or surgery, published a small work on obstetrics‡. He considered delivery by the face exceedingly unfavourable, and proposed to remedy it by

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* A Treatise on Diseases of Women, &c. Translated from the French of M. Astruc. 2 vols. 8vo. London, 1772.

† Maladies des Femmes grosses, 1668—1759.

‡ Observation sur la Pratique des Accouchemens, &c. 1671—1748.

covering the points of the fingers with a compress secured with a ribband. He perfectly described procidentia, or renversement of the womb. He narrated a remarkable case of abortion of four embryos; another of occlusion of the vagina by the hymen, and was of opinion that the expulsion of the meconium was a proof of the death of the fœtus.

About this time Fournier's work appeared*, which was only a translation of Rhodion's.

P. Portal was the next author, and his work contains many valuable precepts and reports of cases†. He was ancestor of the late distinguished French physician of that name. He maintained that face presentations often terminated without any assistance, and that there is no more mystery about them than about other preternatural causes. In shoulder presentations, he returned the part, and concluded that it was not the infant's arm which caused the difficulty, because it and the obstetrician's hand were less voluminous than the head. It was he who first declared, that when one lower extremity was seized in the operation of version, there was no occasion to search for the other—an opinion lately very well elucidated by Mr. Radford, of Manchester. He described the attachment of the placenta over the neck of the womb.

The last author of celebrity in this age was Philip Peu, whose treatise was the most didactic that had appeared before his time‡. He was the first who described retained placenta from the irregular contractions of the uterus after the birth of the infant, or what is termed hour-glass contractions by British, and enchantonnement by French obstetricians. He also remarked that rachitic or deformed women often suffered from pelvic contractions, and were very liable to difficult labours; that it was useless to tear or cut off the arm to get at the feet; that the cord might be twisted round different parts of the infant; that it was sometimes too short, and that it was dangerous to leave any part of the after-birth in the womb. He also considered that it was bad and dangerous practice to apply the abdominal bandage or roller too tightly after delivery. He ridiculed Mauriceau, who advised baptism of an infant with a syringe; and he believed that a woman who had prayed devoutly before the altar of the Virgin, at the Hotel Dieu, near which was a frightful picture of the devil, was delivered of an infant that resembled the devil. He met with a most unfortunate accident which nearly ruined his reputation and practice. He commenced the Cæsarean operation on a woman supposed to be dead, after having first applied a mirror to her mouth, which was not tarnished by her breath §. He had scarcely made the first incision when, by the trepidation or fluttering of the body, he was, though too late, convinced of his fatal error. This unfortunate and melancholy mistake so completely overwhelmed him, that he bound himself by an oath never again to attempt the same operation, until he was thoroughly convinced, by unequivocal signs, that life had fled its earthly habitation for ever. In fine, this author condemned frequent vaginal examinations, was an opponent of instruments in general, and gave a good account of the diagnosis between spurious and real parturient pains.

During the last half of the seventeenth century, England had also her renowned obstetricians. There was nothing invented to this period for extracting the fœtus alive by the head. The Chamberlens, father and two sons,

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* L'accoucheur Methodique, qui enseigne la maniere d'operer pour tous les Accouchemens, &c. 1676.

† La Pratique des Accouchemens, &c. 1682.

‡ La Pratique des Accouchemens, 1694.

§ For a full account of this and other vivisections, see my Manual of Medical Jurisprudence and State Medicine, second Edition, 1836, Art. "Premature Interment," &c. p. 489, &c.

who were in most extensive obstetric practice in London, declared that they possessed the means. One of them went to Paris to demonstrate the superiority of his practice, but he had not realized that success he had expected, though he avowed that his contrivance was much better than the tire-tête of Mauriceau. He returned to his native country without revealing his secret, having first excited the envy of Mauriceau against him. I may here observe that, about twenty years ago, the original models of the concealed instruments (and these were the forceps) were discovered in a chest beneath the floor of a closet in the mansion in which the Chamberlens resided, in Essex.

A very elegant monument was erected by the Duke of Buckingham in Westminster Abbey to Dr. Chamberlen, of whom the Duke has also given in his essays a very amiable character.

On the return of the younger Chamberlen from Paris to London, he translated Mauriceau's work in 1672, which remained for many years in great estimation.

About this period Dr. Percival Willughby of Derby, and afterwards of London, prepared a manuscript which he intended to publish for the use of midwives. He quotes a letter from Everard's work, in which a case of spontaneous evolution is described.

Dr. Thomson had published a small treatise on midwifery in 1660. About the close of this century, Culpeper published his "Directory for Midwives," Salmon brought out a volume which he designated "Aristotle's Masterpiece," and Woolveridge his Speculum Matricis Libernicum—the two first being most demoralizing and erroneous productions, though even now in great circulation among the public. Such were the principal obstetric writers of the seventeenth century.

PRACTICAL REMARKS ON RUPTURE OF THE UTERUS.

To the Editor of the London Medical and Surgical Journal.

Sir—On perusing your account of the discussions at the London Medical Society, February 15, I am induced to request you will allow me to make some observations, with a view of eliciting the further remarks and opinions of the profession at large, and, at the same time, of giving me an opportunity of proving I am maintaining a position on strong grounds, if not conclusive. Your reporter has made a slight error, when he says I wished to obtain the opinion of the Society—1st, on the point of pathology; and, 2ndly, of practice. I was certainly anxious to obtain the opinion of the Society on the point of pathology, but not so of the practice. On the point of pathology I seem to be supported unanimously—a circumstance truly gratifying to me, considering the evidence I had given, and the effect it was calculated to produce on the Court. On the point of practice, I assumed a different position. I asserted that that practice, which all authors advised to be adopted, was impossible to be effected; or, if possible, would be death to the mother. I now find this assertion requires some qualification, or, I would rather say, explanation. for in this sense I asserted it, and, in truth, I still maintain it. It is laid down as a rule of practice, that if the uterus be ruptured, and the fœtus have escaped into the abdomen, the os uteri is to be dilated, if necessary, and the hand introduced through it and the rent into the abdomen, the child grasped, and brought back through the rent into the uterus, &c. This, I assert, to be impossible, and of this more hereafter. If the rupture of the uterus be extended through the os uteri and the vagina, I could admit the possibility of extracting the fœtus from the abdomen, but not through the uterus; and I could also *entertain* even the propriety of the attempt, though my views would lead me to a contrary conclusion. No man, I am sure, sir, is less disposed to impugn the veracity of authors than I am; and when I read or hear they have extracted the fœtus, as in the present case, I believe with Dr. Merriman they only think so, but that, in real truth, the infant has never wholly escaped, or that, as in the latter case, as I shall presently show, the hand has never been in the uterus at all, but simply passed through the vagina. The point at issue between Dr. Merriman and myself is narrowed into a very small compass, for he would admit my position in the first case, if I could make it appear to him the uterus contracted in all cases as that detailed by myself; but from your observations I ap-

prehend, not so with yourself, though, from your report, I have some doubt, for you say—" where there was a practicability of removing the fœtus," &c. With all other written authority there can be no doubt I am decidedly at issue as to the possibility. I am sure, sir, that your love of the science of our profession will at all times make you support the truth of it, even though that should ultimately establish a doctrine different from that you may have previously maintained; and I am equally sure that, if in your Journal publicity be given to opinions expressed in a discussion, or any statement made which has a tendency to involve the character of the individual, you will at all times be most happy to remove that tendency. Now, I think, sir, for the public to be informed of my assertion, without being at the same time made acquainted with the grounds on which I make it, all authority being against me, there is some danger of this ; and, I must add, the more I reflect upon the position, the stronger is my conviction of its verity.

It is necessary to premise, in a natural case of parturition, what I take for granted no physiologist will deny, viz., That when the uterus, by its contraction, expels the infant, the placenta is detached, the two approximating surfaces of the uterus, and the placenta being no longer of the same dimensions, the placenta being incapable of contraction while the uterus is, and that, in consequence of this contraction, the vessels supplying the placenta are rendered impervious to the transmission of blood, in other words, that hæmorrhage cannot take place; and that, as the contraction is more or less perfect, so will be the proportion of discharge.

If, then, the fœtus be expelled into the abdomen through a rent or aperture in the uterus, the placenta would be immediately detached; and admitting the possibility of getting the fœtus back into the uterus, hemorrhage would be the immediate result, and the length of time that it would necessarily take to effect this would be fatal to the woman; for the expulsive power of the uterus would be greatly diminished, if not altogether destroyed; for, be it remembered, the muscular fibre must contract with a peristaltic action. In this particular case I will grant the hand may dilate the os uteri, and pass readily into the abdomen through the rent; that the feet may be brought down and the body as far as the arms, would follow as fast as the uterus could be made to dilate ; but at this period the fœtus must be forcibly held by one hand, whilst the other hand and arm is passed by the side of the fœtus, necessarily above the brim of the pelvis to get down one arm, and then the other. The uterus then has not only got to contain the fœtus but the hand and arm of the operator also. Perhaps it will be answered, " Not so ; the uterus only contains a portion of the legs or body of the fœtus;" but in that case I answer, " If the uterus was not fully distended again, the aperture or rent would not admit the fœtus to be brought back again ; or, if the uterus was not fully distended, the parietes of it would, from their thickness, be an obstacle to the passage of the fœtus:" but, granting you have been able to get the arms into the uterus, you would have still more difficulty with the head; here nothing short of both hands and arms would suffice ; the one hand certainly could not pass all round the neck of the fœtus and lift up the contracting edges of the uterus over the head at the same moment, without which the head could not enter the aperture. I feel assured, then, if the uterus has ever been contracted after the expulsion of the fœtus into the abdomen, this contraction will for ever render it impossible to deliver the woman. But it is assumed by Dr. Merriman, and I will take it for granted by you and others, that in ordinary cases of rupture of the uterus, that is, in an unhealthy state of the uterus, the contraction would not be so complete, but only a partial one ; by this I understood, and now understand, not an irregular one, but simply not so compact; for if I am to suppose that it was irregular, and that the part of the uterus to which the placenta was attached did contract, while all the other parts did not, you will have much more difficulty to contend with, by assuming a position, you can prove either the fact or cause; and if I am to believe the uterus did not contract sufficiently to detach the placenta, I ask how the fœtus could be thrown *wholly out* of the uterus; I am fully aware the uterus occasionally relaxes from its contractions, but certainly not to the extent of full dilatations, and here hemorrhage and death speedily follow, if contraction is not immediately reproduced. I now come to the second case, viz. rupture of the uterus from its fundus or side to the os uteri, and also that including the vagina itself; and here I must remind you, that your reporter has fallen into another slight error; it is very probable the fault was mine, in not making myself sufficiently clear; I never contended in the first case there was any difficulty in passing the hand through the lately contracted os uteri, and then through the rent into the abdomen; but I do contend that in this latter case you cannot dilate the uterus at all in the sense we have before been speaking of, and consequently cannot introduce the hand; if the os uteri be ruptured and the vagina not, possibly the os uteri may be dilated, but I should think the vagina much more likely to be ruptured in the attempt; but if not, the moment the hand was passed beyond it, it would pass out of the uterus through the rent; and though you might lift up the edges of the ruptured uterus, in other words,

open the slit uterus, you could not dilate it: that power would necessarily be destroyed; in this case, then, my assertion is correct; and we have now only to decide on the point of practice in this case of rupture of the uterus, extending through the os uteri, with or without rupture of the vagina, whether delivery should be attempted or not; and I must own, bearing in mind the great number of cases on record of recovery when left to nature, I am decidedly inclined to leave the fœtus; for, when I reflect, 1st, on the increased probability of peritoneal inflammation from the introduction of the hand in this case, which necessarily exposes the peritoneum to a free communication with the external air; for here there will be no contraction of the uterus round the hand and arms to prevent it. 2ndly. The liability to get a portion of the intestine entangled with the child. 3rdly, The diminished cavity of the pelvis, from the obstruction, as I should contend, of the thickened uterus occupying a portion of the space; and lastly, the almost, as it appears to me, the inevitable consequence of bringing the uterus and its appendages with the fœtus, I think the mother's risk would be greater, I should say death was almost inevitable. The case lately reported at the Medical Society holds out additional hope that these cases may be more generally saved than hitherto, by simply waiting for a few weeks, till an adventitious membrane has formed round the fœtus, and then opening the abdomen by incision, and extracting the fœtus, instead of leaving the fœtus by its irritation to produce repeated ulceration of the parietes of the abdomen, &c. and passing out piecemeal in a series of years. I agree with Mr. Dendy, that no danger would accrue to the mother by any *probable violence* done to the uterus in either case, and that the fault of every obstetrician is, he does not have recourse to art till it is too late; and this is an opinion daily gaining ground.

I am, dear sir,

Your's very truly,

W. J. Blicke.

According to our friend Dr. Blicke's own admission, he is opposed by all obstetric writers, who recommend the extraction of the fœtus by the natural passages whenever it is possible. They also agree that in most cases of rupture of the uterus, the woman exclaims the moment of its occurrence, that something has given way within her. She becomes faint almost instantaneously, either on account of the shock given to her nervous system or from loss of blood from the edges of the uterine aperture. In such cases the uterus remains dilated until reaction returns, and even then perfect contraction of the injured organ is, upon the whole, of rare occurrence for some hours afterwards. In such cases, obstetricians have experienced little difficulty in passing the hand through the uterus and extracting the fœtus by the feet. Douglas did so successfully, and the woman recovered. (Denman.) Blundell touched the liver of the mother in searching for the feet of the infant; he accomplished delivery, and the woman did well. Hamilton was equally fortunate. Ramsbotham describes a case, in which he passed his hand into the maternal abdomen, and effected version, but the woman died on the fourth day. Dunn felt the kidney of the woman while performing the operation, but his patient did well. Campbell and Kendric were also successful.

But, when delivery is attempted three or four days after the uterus has ruptured, it may be aacomplished even then, but the woman perish. (Motte, Hawley, Merriman).

Most obstetric authors advise gastrotomy in cases of rupture of the uterus, when the introduction of the hand, or the operation of version is impracticable, and whether the fœtus be partially or entirely excluded from the uterus.

Hamilton describes five successful cases; Thibault another. Desbois Lambron performed the operation twice with success on the same woman; and it has been done with happy results, by MM. Coquin, Capon, Somme, Ceconi, Ruth, Rust, Nægele, Gais, Weinhardt, Heim, and others.

Now, Dr. Blicke would leave most cases to nature for some months, and the inference is for years, and then advocate gastrotomy. But in these cases of rupture in which the fœtus escapes into the abdomen, and lives for some minutes or hours, and cannot be extracted through the natural passages, is gastrotomy advisable, or ought the infant be allowed to perish, and the case left to nature?

We do not agree with Dr. Blicke, that it would be best to consign all or most cases to nature, for then in the majority of cases in which the operation might save the life of the fœtus, and would be less dangerous to that of the mother, the inflammatory and ulcerative processes must follow before the fœtus can be excluded from the abdomen. In support of our opinion, we beg to remind Dr. Blicke of the success of gastrotomy lately mentioned at the Medical Society, and first proposed by one of the members, whose name was never published, but the credit given upon the *sic vos non vobis* principle, we presume, to others. We are much obliged to Dr. Blicke for this instructive paper.—Ed.

Fatal Case of Purpura Hæmorrhagica, with Post Mortem Appearances.

Elizabeth Royle, the daughter of widow Royle, aged three years and two months, was attacked with measles on the 12th of January, 1835, which eruption continued

out for three days, after which it declined, leaving the child affected with a short, tickling cough, without hoarseness: symptoms of fever continued, from the mother's account, and the child had incessant thirst; diarrhœa, cough, morbid heat, with febrile symptoms, increased towards evening, and her nights were spent without rest. I was not called to see the child earlier than the 19th, when I wrote the following notes at the bedside of the little sufferer. Pulse small and frequent; tongue red at the edges and tip, coated with a brown fur on the centre and posterior part; great thirst; morbid heat of skin; no tenderness of the abdomen; dark and offensive evacuations from the bowels; secretion of urine scanty; rest much disturbed; does not complain of the slightest pain; the countenance pale, and the features express much debility or collapse.

℞. Pulv. rhei;
Pulv. ipec., ā ā gr. iiss;
Ft. Pulv. j nocte maneque sumend.
℞. Quininæ sulph., gr. viij;
Acid. sulph. dilut., *m* xv;
Inf. cascarillæ, ℥ ij.
Ft. miss coch. i a. ter die.

Recommended a gelatinous diet, with an ounce of wine twice a day.

Jan. 21st. On taking hold of my patient's arm to feel the pulse, I discovered a strictly purple-coloured eruption, in very small spots, about the size of a large pin's head, dispersed over the arm and hand. I recognized the disease immediately, and forthwith examined the rest of the body, when I found the same kind of eruption spread in small and larger spots over the body generally; also on the inside of the mouth and tongue. On the right dorsum iliac there was a patch of them about the size of a crown piece. The mother stated that she first observed the eruption on the neck the evening before, in a few spots, and in a few hours more she saw more of them.

Symptoms.—Great prostration of strength; the child cannot support itself on the pillow, but constantly gets lower in the bed, and its extremities much flexed—a mark of the greatest weakness; memory unimpaired, but the child begs not to be spoken to or disturbed; pulse small and irregular, sometimes intermitting; intense thirst, with loss of appetite; the lips and teeth are covered with a very dark fur, or sordes; the breath fœtid; evacuations are passed as she lays, which surprises the mother, when the child is conscious, as she was naturally a clean girl; countenance pale; skin cool; cough troublesome; the stethoscope indicates subacute bronchitis; the eruption is not much increased; no sleep.

Jan. 22nd. The bowels have been evacuated once—the discharge is dark and very offensive, like the secretion of melania; the child refuses everything; emaciation more excessive; no irritability of stomach; the senses remain perfect; the secretion of urine and bowels regular; pulse weak; the child appears to suffer no pain, but lays like one anxiously waiting for a termination to its sufferings.

The patient continued to live till eleven at night, when she calmly expired, without a groan, as thus expressed by the parent.

Post-Mortem Appearances eighteen hours after Death.—The purple spots were most apparent about the neck and chest of the right side; there were very few indeed on the back or abdomen, but many small ones were seen on the upper and lower extremities; but these were more minute than on any other part of the body. A large patch was situated on the right dorsum iliac, also over the right olecranon process of the ulna, and another large one on the inside of the calf of the left leg: none were observed on the scalp. A spot was seen about the size of a split pea on the sclerotic conjunctiva of each eye, but more of a red colour than those situated on the cutaneous surface; but the palpebral conjunctiva on the minutest examination did not appear to be injected in like manner. After making an incision extending from the upper part of the neck down to the os pubis, and reflecting the integuments, I next proceeded to raise the sternum, when, on opening the anterior mediestinum, a gush of sero-purulent matter flowed out; there might be about three ounces. The two sides of the abscess did not adhere in any point; but a thick coating of coagulable lymph lay on the surface of the exposed structure. The parenchymous structure of the lungs appeared healthy; but, on examining the bronchial membrane, its surface is a little more vascular than is usually found in a normal state. The lungs floated in water, and were crepitant when incised. The posterior part of the inferior lobes was somewhat engorged, but the superior lobes were very little infiltrated. There was no adhesion of either plexus, or on either side; the chest was free from any effusion. The substance of the lungs under the serous tunic appeared studded with the purpuric effusion, as on the cutaneous surface. Also, it was freely secreted under the serous membrane, which covered the costa, and also on the upper surface of the diaphragma. This appearance was more observed on the right side than the left of the interior part of the chest. I failed to remove it, on attempting to wipe it away with the sponge. The serous membranes themselves of this cavity were perfectly healthy to all appearance. The heart was of the usual size; there was no effusion into the pericardium, nor did I observe the hemorrhagic deposit in any structure about the heart.

Abdomen.—The liver was of the natural size, with three or four indentations on its convex surface, where it lay in contact with

the costæ. There was no appearance under the serous tunic of the like deposit, as observed in the chest. The gall-bladder was very much distended with bile of a very dull colour, but which presented the usual character of good bile, as far as my observation indicated. The spleen and kidneys also appeared healthy. The head of the pancreas had somewhat of a scirrhous hardness, but not much increased in size. No effusion into the abdomen, the serous membranes of which presented a healthy appearance. The convolutions of the intestines were entirely free from any of the secretion before alluded to, but the mesentery was loaded with it. The mesenteric glands were enlarged, and of a dark purple colour, which corresponded with the colour of the cutaneous deposit. On laying open the stomach, a quantity of dark grumous matter flowed out, homogeneous, and of the same colour and consistence of treacle. On clearing this away, and wiping the mucous surface with a sponge, the same mottled appearance was observed as on the skin, but to a prodigious extent, so much so, that the disc of a split pea could not have been put down between; and, in very many places, the point of a quill. This morbid appearance seemed to be seated in the submucous tissue. The mucous membrane was not softened. This morbid spuma would have made a beautiful and valuable drawing, had it been faithfully delineated. This mottled appearance gradually declined towards the pyloric orifice. This appearance did not exist in the small intestines, but the caput coil, and ascending portion of the colon, were characteristic with the appearance of the stomach. The rectum and descending colon were not examined. The small intestines were very much invaginated one into another, some for the length of four and five inches, others one or two inches; these invaginations were very numerous, and their interior surface did not present the mottled appearance.

The bladder contained about one ounce of dark-coloured urine: its mucous surface appeared perfectly normal, except at the trigone, where it was a little pinky-coloured. The uterus was about the size of a garden-bean. No examination of the head was permitted. I regret at not being able to bring away the stomach, or a specimen of the large bowel, as I was narrowly watched by the friends of the deceased; and it was with extreme difficulty I was allowed at all to make an examination.

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Reviews.

A Manual of Medical Jurisprudence and State Medicine; being a Compendium of the works of Beck, Paris, and Fonblanque, Orfila, Christison, and all standard modern writers. In Four Parts. Part I. Medical Ethics. Part II. Laws relating to the Medical Profession. Part III. All Medico-Legal Questions which may arise in Courts of Justice. Part IV. Laws relating to the Preservation of the Public Health. Intended for the Use of Legislators, Barristers, Magistrates, Coroners, Private Gentlemen, Jurors, and Medical Practitioners. Second Edition, considerably enlarged and improved. By Michael Ryan, M.D.; Member of the Royal College of Physicians in London, &c. &c., Professor of Medicine, Obstetricy, and Medical Jurisprudence, at the Medical School, Gerrard Street, Soho, &c. &c. 8vo. pp. 554. London: Sherwood and Co. Paternoster Row. 1836.

We cannot, for obvious reasons, notice this work farther than to inform our readers of the additions that have been made to the last edition. We deem this our duty, so far as we are individually concerned. It is also but justice to the publishers, to observe, that they offer it to the public at little more than half the cost of much less comprehensive works on the subject.

The favourable reception which this work has received in this and other countries, has compelled the author to endeavour to improve a new edition. He has accordingly enlarged many chapters, introduced much new matter, and carefully revised every part of his work. He has referred to the last editions of all standard works on the subject of which he treats, and appended all that is valuable since his former edition. He has considerably enlarged the first part, on Medical Ethics, by introducing the codes of continental Europe and America, and also those of Dr. John Gregory and Dr. Percival. Under this head, he has commented on Medical Education, Degrees, Diplomas, Medical Appointments —Success—Reputation—Eminence—Moral and Physical Medicine—Clinical Medicines—Rules for Prescribing Medicines—Action of Medicines on the Economy—Posology, or

Fixation of Doses of Medicines—Pharmacology.

Part II. Laws relating to the Medical Profession is brought down to 1836. Few additions are made in this section, as the author is of opinion that the whole of the laws relating to Medical Polity in this country, will be remodelled during the present or next Session of Parliament.

Part III. Medical Jurisprudence is considerably enlarged, and in the opinion of the author, improved. Several additional Medico-legal questions have been introduced into this section.

Part IV. Laws for the Preservation of Health—Medical Police—State Medicine—Public Hygiene. This section occupies sixty pages of new matter. It comprises a vast number of subjects of great interest to public health and happiness.

Chapter I. Laws for the preservation of Public Health — Quarantine, Boards of Health—Contagious Diseases—Disinfection —Purity of Air, Water, and Situation—Guardians of the Public Health—College of Physicians, as inspectors of Apothecaries' shops, officers of Public Charities—Commissioners of Paving, Sewers, Cleansing the Streets, &c.—Framers of the Bills of Mortality.

Chapter II. Inhumation—Burial of the dead in Cities—Searchers and Inspectors—Danger of Exhumation and Opening of Graves—Premature Interment—Uncertainty of the Signs of Death—Account of Individuals buried alive — Vivisections — Proper period of Inhumation—Custom in France and England.

Chapter III. Signs of Real Death; Aspect of the Face; Absence of Heat, and Lividity of the Skin; Absence of Circulation and Respiration; Cadaverous Rigidity or Stiffening; Physiological Causes of it; Physical Proofs of Death; Surgical Proofs; Incisions, Decapitation, &c.

Chapter IV. Putrefaction of Animal Matters; Putrefaction in the open Air, Water, and different Earths; modified by Age, Constitution, Sex, State of Thinness or Obesity; Mutilation or Integrity of the Body; Genus and Duration of Disease; Phenomena before Death; Period of Inhumation; Appearance and Cause of Insects; Humidity and Dryness of Earth; Chemical Composition of Earth; Depth of the Grave; Naked or Clothed State of the Body; Atmospheric Influences; Conversion of the Body into Adipocire; Dr. Fletcher's Physiological Views of Putrefaction, 1836.

Chapter V. Nuisances Legally and Medically considered; Trades and Manufactures; Filth in the Streets; Noises by Day or Night; Transitory Nuisances; Physical Effects of; Arrangement of by Paris and Fonblanque, including the Principal Trades and Manufactures; Purity of Air, Water, and Situation.

In addition to the new matter, there is prefixed a history of the rise, progress, and present state of Public Medicine, and also a copious Index, which may, perhaps, be considered a Medico-Legal Dictionary. It is the fullest hitherto published in our language. Such are the features of this work. The author extracted from all available sources, both domestic and foreign; added the result of his own experience; and has presented to his readers a variety of information, not, so far as his researches enable him to state, to be found in any other elementary work in one volume, of equal size, on Medical Jurisprudence and State Medicine. He has not prefixed or added a bibliography, but leaves his readers to form their own conclusions on the number of works to which he has referred, and which he has duly acknowledged.

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Nouvelles Reserches Sur le Rhumatisme articulaire aigu en general, et Specialement avec cette maladie, ainsi que sur l'efficacitié des emissions Sanguines coup sur coup dans son traitment. Par J. Bouillaud, Prof. de Clinique, &c. 8vo. pp. 158. Balliere.

New Researches on Acute Articular Rheumatism in General, and especially on the Law of Coincidence of Pericarditis and Endocarditis with this Disease, and of the efficacy of successive Depletions in its Treatment.

This is a most instructive work, and one which we strongly recommend to all acquainted with the French language. But we are happy to state that, as a part of the author's unequalled work, it will speedily appear in our language. M. Bouillaud gives a complete history of the diseases

of the heart, as Laennec has done of the lungs, and his work is one of reference and authority. The first chapter of the work is entirely devoted to determining the law of coincidence that exists between inflammation of the internal and external sero-fibrous tissue of the heart and acute articular rheumatism. In the five following chapters the author treats of the history of this latter affection. He explains, 1st, the progress, duration, and termination of acute articular rheumatism; 2nd, its anatomical characters and its seat; 3rd, its causes; 4th, its nature; 5th, and lastly, its treatment. It is in the last part that M. Bouillaud develops his new method of general and local depletions successively repeated, and that he points out the advantages that he has found in his practice in the hospitals. The views of the author have been fully discussed by the Academy of Medicine, and highly approved of by that learned body.

FREE HOSPITAL, GREVILLE STREET—DISMISSAL OF MEDICAL OFFICERS.

On Tuesday evening, March 1st, an adjourned General Annual Meeting (from Tuesday last), of the governors of the Free Hospital, Greville-street, Hatton-garden, took place at the Gray's-inn Coffee-house, for the purpose of deciding upon a notice of motion for the expulsion of Mr. Tweedie, one of the surgeons of this institution, for having given the following testimonial to Mr. Franks, 90, Blackfriars-road, in favour of the efficacy of "Franks' Specific Solution of Copaiba:"—

"My dear Sir—I have notes of six cases, in which I have administered your preparation of Copaiba in the cure of gonorrhœa, in all of which the disease has been subdued in a shorter period of time than according to the ordinary plan hitherto made use of. Besides these cases of which I have taken notes, I have tried it in several instances at the Greville-street Hospital, and am quite satisfied that it possesses a control over the urgent symptoms of gonorrhœa, relieving the discharge and mitigating the scalding in making water, that I have not observed in the usual methods of exhibiting copaiba. In one instance only did it disagree with the stomach, but in this it seemed to depend rather on the method of exhibition than on the remedy itself; for on diluting it with a larger quantity of water, the objection was at once obviated, and the patient got well in ten days from the time that he commenced taking the medicine. I have not had a case in which the disease continued longer than ten days after commencing this treatment.

"I am, dear Sir, yours, very truly,
(Signed) "Alexander Tweedie.
"43, Cannon-street, City, April 15, 1835."

At an early hour in the evening the room was filled by parties, who appeared to take considerable interest in the proceedings.

The Secretary, Mr. Fenn, read a letter from Pascoe St. Leger Grenfell, Esq. (the treasurer), regretting that his absence was occasioned in consequence of unavoidable circumstances; and then reminded the meeting that their first business was to elect a chairman in the absence of their treasurer.

Mr. Marsden then said, I move that Mr. Alderman Harmer take the chair.—(Applause and great confusion.)

Mr. Courtenay said, it appears to me exceedingly improper that Mr. Marsden—(Hisses, applause, and great interruption)—that Mr. Marsden, situated as he is in relation to the question which is to occupy the meeting, should propose the chairman.—(Hisses.)

Mr. Alderman Harmer then said, I move that Mr. Selson take the chair. Hands were held up, and Mr. Selson took the chair. He requested the meeting to give every one an impartial hearing.

Mr. Tweedie attempted to address the governors, amidst great interruption. He claimed the privilege of an Englishman to challenge his jurors. When the chairman had obtained a hearing for him, he read a letter which he had received from one of the visiting committee, to the effect that, upon his application to the Secretary for a list of the governors who had been made since the 1st of January last, the Secretary stated that he had not had time to make out the list, which must be delayed for some days.—(Great confusion.) The writer, Mr. Clay—(Cheers and uproar)—in his letter stated that he had made the application, because at the previous meeting he had understood persons to be present who were not governors, and he himself could mention the names of several who were present and not qualified.—(Great uproar.)

Mr. Clay was at length permitted to state that he thought he had a right to demand a list of the new governors, especially as he was one of the visiting committee.

Mr. Tweedie was about to leave the room, when

The Chairman said, "I move that Mr. Tweedie's presence be dispensed with."—(Cheers and great tumult.)

Mr. Courtenay rose to order. Much as he had seen of sharp practice at the Old Bailey and at the last meeting, he was not prepared for such a violation of all principle and decency as that the Chairman should take upon himself to supersede a motion before the meeting, by moving another, practically deciding the question at issue.—(Great

confusion.) After which the Chairman withdrew his own motion, and called on

Mr. Stevens, who said that up to the present moment he had hoped that it would not have fallen to his lot to intrude upon the meeting.—(" Oh, oh," and cheers.) He thought that after the strong majority which had carried the motion brought at the previous meeting, it would not be necessary for him to bring forward the similar motion, which stood amongst the notices.—(Cheers and laughter.) He had hoped that he would not have been compelled to do so, and that Mr. Tweedie would have resigned.—(" Oh, oh," applause, and great laughter). Mr. Stevens then went into the particulars of the charge against Mr. Tweedie—that the latter had given a testimonial to the effect that he had tried Franks' Specific Solution in the Greville-street Free Hospital, in cases for which he considered it a proper remedy, and that he had found it an effectual one. He disclaimed all intention of casting any imputation upon the moral or professional character of Mr. Tweedie,—(" Oh, oh," and laughter, followed by cheers.) He repeated that he disclaimed this, and he trusted that Mr. Tweedie would retire from the meeting with his character unblemished, and that that gentleman would never have been the subject of this motion, but for an act of indiscretion, of which advantage had been taken by the proprietor of the medicine. But if the letter of Mr. Tweedie was not given for publication, for what purpose, he would ask, was it given?—(Cheers.)

Mr. Bransby Cooper rose to order, but was prevented from speaking, first by a number of persons who made indescribable noises, and secondly by the Chairman, who decided that Mr. Stevens was in order, without hearing Mr. Cooper's objection.

Mr. Stevens then concluded, by moving a resolution to the effect, that Mr. Alexander Tweedie having given a testimonial in favour of " Franks' Specific Solution," the properties of which could not be known to him, it became the painful duty of the governors to resolve that Mr. T. should no longer be a surgeon of the hospital.

Mr. Galloway seconded the resolution, and in doing so expressed his sincere conviction that no imputation could be cast upon Mr. Tweedie's character, morally or professionally. But, as that gentleman had given his opinion in favour of Franks' Specific in such a way that ignorant people might be led to believe that they could cure themselves without medical advice, it was necessary for the interests of that hospital, that Mr. Tweedie should be no longer identified with it.—(Cheers, and cries of " No, no.") He again complimented Mr. T., in the strongest terms, and fully acquitted him of any improper intention in the testimonial he had given to Mr. Franks.—(" Oh, oh," and loud cheers.)

Mr. Tweedie, who was then called, said nothing could give him greater pleasure than to answer for every part of his conduct to the governors of that charity, who had appointed him to the honourable office of a surgeon of the Free Hospital, by a large majority—(" Hear," and cheers)—and he would assure them that since that time, it had been his constant aim strictly to conform to the duties imposed on him, and to merit their approval. (Cheers, and cries of " No, no.") Since his connection with the charity, he had devoted his time and attention to the patients, and prescribed those remedies which he thought best calculated to effect their cure.—(Cheers.) A large proportion of the cases which came under his care, were of that class for which the " Specific Solution of Copaiba" was usually administered. The Balsam of Copaiba was deprived of its nauseous properties by Mr. Franks' preparation, so that it could be administered with less annoyance to the patient and injury to the stomach.—(" Hear, hear," and great interruption.) Now, he (Mr. Tweedie) was extremely orthodox in his opinions as to professional conduct, even more so, he would say, than Mr. Marsden himself. (Great confusion.) His first step, when this charge was brought against him, was to lay his case before the College of Surgeons, and he would read to the meeting the letter which he had addressed to the Council of his college, and the answer with which they had honoured him. (Mr. T. then read a letter addressed to the Council of the College of Surgeons, in which he set forth the charge which was pending against him, and the circumstances out of which it arose. The letter stated that in February, 1835, Mr. Hentsch, one of the medical officers of the Free Hospital, mentioned to him that Mr. Franks, a practising surgeon officially connected with the South London Dispensary, had succeeded in removing the disagreeable effects of the usual preparation of copaiba, and had extracted a greenish, olive, ropy sediment, and had thereby rendered the medicine much more efficacious and less irritating—that he had therefore given the preparation a trial—and that when Mr. Franks applied to him for his opinion of its efficacy, he had no hesitation in giving him a letter testifying that he had found the preparation effectual in the cases in which he had thought it applicable; that in giving that letter he had only acted as others, more experienced members of his college, had done, viz. Sir Astley Cooper, bart.; Sir Benjamin Brodie, bart.; Mr. Green; Mr. Bransby Cooper; Mr. South; Mr. Tuckett, on board the " Dreadnought," and several other highly distinguished members of the medical profession; and that, being now threatened with dismissal from the situation of surgeon to the Free Hospital to which he had been elected, in consequence of his giving that letter, he requested the opinion of the

Council of the College of Surgeons whether or not he deserved to be subjected to that stigma which such a dismissal would affix to his character. To that letter he had received an answer, which not only exculpated him generally, and expressed the opinion of the Council that he had not acted wrongly or unprofessionally, but which emphatically stated that the Council "could not believe that the governors of any institution would be induced to remove a surgeon from their establishment for having tried a new mode of administering an old and well known medicine, and testifying to its effects." Mr. T. then went into other details respecting the proceedings which had been taken in the committees of the Free Hospital, and at the general meetings, at which he and Mr. Hentsch had been fully exonerated from blame or reproach. He felt proud that on such an occasion he had been honoured by the support of so eminent a man in the profession as Mr. Bransby Cooper.—(Cheers and hisses.) He felt proud that that eminent man had declared to the governors of the institution that he held him in respect and affection.—(Vehement cheering.) Mr. Stevens, indeed, who had proposed his dismissal, had said that his (Mr. T.'s) conduct was unprofessional, but his colleagues, with only one exception, did not say so.—(Cheers, and cries of "hear, hear," from Mr. Marsden.) The heads of his college, the most eminent of his profession, repudiated such a charge.—(Cheers and hisses.) He could assure the governors that he had not recommended the indiscriminate use of the medicine. ("Oh, oh," and cheers.) He had particularly specified in his testimonial, the six cases in which he had tried its effects, and he still used it in his private practice.—(Cheering and the usual uproar.) Notwithstanding the manifestation of feeling which he had witnessed, he would not be deterred from putting faith in his fellow men. If he should be deceived, he would console himself in the language of Edmund Burke, "that it was much better to be deceived than to be suspected." Mr. Stevens had asked, why did he not resign?—("Hear, hear," and applause). Now, Mr. Stevens had become a governor since the letter was written, on which that meeting was to decide, and this fact he might adduce as an argument to show, that if other gentlemen had become governors since the publication of the testimonial complained of, the effect of that testimonial had not tended to injure the friends of the institution, nor had it deterred new governors from coming forward with their subscriptions in aid of a charity, in whose welfare and prosperity he had felt so deep an interest. But he (Mr. Tweedie) would never resign under the fear of being turned out.—(Great cheering.) He felt convinced that he would be enabled to prove that his conduct had not been injurious to the interests of the charity. He was not ashamed of what he had done—his colleagues were not ashamed of him—and the Council of his College did not only not disapprove of his conduct, but fully exonerated him.—(Cheers.) He also complained that Mr. Marsden had misrepresented his conduct in a paper he enclosed in his circular to the governors, by giving two copies of letters said to be written by him, when he had only written one, which Mr. Franks had mutilated to serve his own purposes. A paragraph had also appeared in the Globe, Morning Chronicle, Morning Advertiser, and other papers, stating that the meeting of Tuesday last had adjourned to this evening to allow him, Mr. Tweedie, time to resign his office, which was false and a gratuitous insult. He did not know who he had to thank for this piece of kindness. Mr. Tweedie, before he sat down, would beg the attention of the meeting to a letter which he had received from a nobleman, one of the governors (Lord Manvers) in which that noble lord expressed his regret that Mr. Tweedie was made the victim of persecution, for the stand which he had made last year against the attempt to saddle the hospital with an additional salary to the secretary, to which in his (Lord Manvers') opinion, the secretary was not entitled.—(Cheers and hisses, and prodigious uproar.)

After a vast deal of confusion, in which several governors attempted to speak, Dr. Uwins, having possession of the chair, was shamefully interrupted by a medical student (as he was described), whose name we understood to be Hook, claiming to be heard in reply to Mr. Tweedie. This person appeared in a grey, dirty morning gown, and was mistaken by many near us, for a butcher's or a chandler's boy.

Dr. Uwins persevered, and said that the proceedings of the governors on this occasion reminded him of the pot and the kettle.—(Laughter). The persons who brought this charge were themselves liable to the same imputation.—(Uproar). Really, the conduct of the movers in this matter, reminded him of something which he had lately overheard in one of the national theatres—(Uproar, and cheers)—when two Cyprian ladies of "extreme modesty" remarked one to the other, the disgust she experienced at the exhibition of the Opera dancers' legs—"Oh, oh," and laughter). This was a case (he urged) exactly in point, and he could not help saying, that he looked with great suspicion upon such complaints, proceeding from the quarter whence they came, and he was not surprised that there should be in that hospital a jealousy of the medicine in question.—(Cheers and groans). The delicacy of certain persons upon this point reminded him of the delicacy of the ladies to whom he had alluded.—("Hear, hear," from Mr. Marsden; cheers, laughter, and groans).

Dr. Uwins then detailed cases in which his incidental testimony of the genuineness of preparations of bread, &c. had been made public without his consent, and respecting which he had never thought it necessary to apply to the Vice-Chancellor, or to defend himself before any institution to which he had the honour to belong.—(Cheers and laughter). Up to the time of these proceedings he had regarded Mr. Marsden as a friend. Indeed, he had no other feeling towards him now than that of friendship: "but," said Dr. Uwins, "it is my feelings which force from me the confession that, in this case, Mr. Marsden has adopted the most unjustifiable means.—(Hisses, cheers, and indescribable confusion). The doctor, having instituted a comparison between "Batley's Drops" and "Franks' Specific Solution of Copaiba," as legitimate medicine, and bearing his testimony again to the efficacy of the latter, which he had that day given to a near relative of his, sat down amidst loud cheers.

After some observations from Mr. Watson, in explanation,

Dr. Ryan, the other physician to the Free Hospital, rose, and was loudly cheered. He had been mixed up with the transaction before the meeting, from the first, and he had been strongly opposed to the misuse made by Franks of the testimonials—(Cheers)—even at the time when two of the most eminent men in the profession, Mr. Green, and Mr. Bransby Cooper had signed a recommendation of that gentleman's preparation. He did not belong to any party in that institution, nor elsewhere.—(Cheers). He was a friend of Mr. Marsden—he was a friend of Mr. Tweedie—he was a friend of the charity—but he would fearlessly avow that he was a greater friend of justice.—(Much cheering). Mr. Tweedie had done all that it was possible for him to do to prevent the publication of the testimonial complained of. He had been imposed upon, in common with Mr. Green and Mr. Bransby Cooper.—(Cheers).

Mr. Hope.—The Vice-Chancellor has decided that there was no imposition.—("No, no," renewed cheers).

Dr. Ryan resumed—It was the opinion of Mr. Tweedie's colleagues that no secret medicine had been used.—(Uproar). What did gentlemen desire Mr. Tweedie to do? (Cheers). He had done his best to prevent the publication, and after all, the whole matter in dispute involved only a question of professional etiquette; and were the governors of that hospital, he would ask, to decide upon it against the opinion of the Council of the College of Surgeons?—(Great laughter, and cheering). Did the governors intend to supersede the Colleges of Physicians and Surgeons? perhaps they were influenced by the march of intellect; but it was possible that they might find quite enough to do in minding their own affairs. If Mr. Tweedie had injured their charity, let them punish him; but as to their opinions on medical etiquette, they were most presumptuous and ridiculous. Mr. Tweedie was not a salaried officer. His services were gratuitous. Would they, for the sake of vindicating professional etiquette, which the heads of the profession declared not to be at issue, discharge that gentleman, as they would discharge a menial?—(Cheers, and prodigious uproar). Dr. Ryan concluded by declaring that, if the Governors should commit, as he believed they would not—for it was impossible for Englishmen to do so—so gross an act of injustice as to pass the proposed resolution, he would at once resign his situation, and he should leave it to them to consider in what condition they placed the charity—a charity to which he would, on such event, fearlessly proclaim, no respectable physician or surgeon in London would belong, and subject himself to the grossest insult and injustice.—(Applause and cheers.

Mr. Alderman Harmer supported the resolution, and completely broke down.

Mr. Lucas, one of the surgeons of the institution, had mixed himself up as little as possible with the affairs of the hospital, beyond his professional duties. He was more indebted to Mr Marsden than to any other medical officer connected with the establishment, but that obligation would not justify him in coming forward to sanction proceedings which he felt in his heart to be unjust to his friend and colleague, Mr. Tweedie. He agreed with what had fallen from Dr. Ryan and Dr. Uwins, that the proceedings were altogether personal—(Uproar.) If gentlemen were to receive such treatment from the meeting for expressing their opinion he would be silent.—(Renewed tumult.) One observation of Mr. Marsden's, which had been made in his (Mr. Lucas's) hearing, he felt it to be his duty to repeat. That medical officer said, "This institution has answered *my* purpose, and let the other medical officers make it answer theirs.—(Immense tumult.) This observation was made in more than one or two instances.—(Renewed tumult.) Mr. Lucas concluded by declaring that he would not remain in connection with the institution, if the motion before the meeting should be carried.—(Hisses and applause.)

Mr. Greville Jones, another of the medical officers, expressed his disapprobation of the testimonial which was the subject of the present discussion. But he entirely acquitted his friend and colleague of unworthy motives; and although he would not resign if that gentleman was expelled, he would always be happy to receive him as a friend; and if the meeting decided that Mr. Tweedie was to continue in his situation he (Mr. Jones), would be happy to act with him as his colleague. He would join the majority of the governors, whatever way they decided.

Mr. Marsden denied that he had ever used the expressions attributed to him by Mr. Lucas.

Mr. Lucas said, that in the heat of the moment—(Loud cheers)—in the heat of the moment, he had used the expression of which Mr. Marsden complained.—(Cheers and laughter.) In the heat of the moment he had said that he had heard Mr. Marsden more than once declare that the institution should answer his purpose; and that if it did not, he would leave others to shift for themselves. —(Cheers.) Now, having said so much in the heat of the moment, he had only to repeat it when he was perfectly cool.—(Confusion beyond description.)

Mr. Bransby Cooper, having been alluded to claimed to be heard in explanation. He fully vindicated Mr. Tweedie's conduct, as being in no degree unprofessional, although the use made of his testimony might be condemned. From what he (Mr. C.) had seen of the meeting of that night, and of the preceding Tuesday, he would never degrade himself by appearing amongst them again.—(The usual manifestations of disturbance.) He produced a letter, the reading of which gave rise to much confusion. From this, however, Mr. Cooper emphatically accused Mr. Marsden of making the Free Hospital subsidiary to quackery. Mr. Cooper added, the governors had used a quack title for their institution—which was for the cure of malignant diseases. He concluded by declaring he should never again address them; and with much energy said to the chairman, erase my name from the list of governors.

A most strong and unbecoming wrangle took place around the chair, the Chairman forcibly seizing the letter* out of the hands of Mr. Tweedie, and Mr. Marsden exclaiming, "Keep it, keep it." The motion was ultimately put and carried for the expulsion of Mr. Tweedie, notwithstanding a governor, whose name we could not learn, having made repeated attempts in vain to induce the Chairman to put an amendment which he had to propose. The routine business was, we believe, gone through, the majority of the medical officers and a large number of the governors and their friends having left the "the uproarious" in possession of the field.

* It appeared that this was forwarded by a patient of the hospital, that attended Mr. Marsden at his own house, who wrote a prescription in such a manner that no one could decypher it, unless one in the secret. It was sent to Mr. Brookes, a chemist in Holborn, with a direction headed Free Hospital. This was a secret or quack medicine not mentioned in the London Pharmacopœia. Mr. Marsden replied, that Mr. Abernethy had written prescriptions in the same manner.

ELECTION OF A HOUSE-SURGEON TO THE NORTH LONDON HOSPITAL, BY PUBLIC EXAMINATION.

The second instance* of the election to office simply on the score of merit, in this kingdom, took place at the North London Hospital in the early part of the week, when the office of house-surgeon was presented to Mr. Hodgson, of Halifax, after a severe contest, in which three other candidates were concerned. The examination, calculated in every way to test the extent of knowledge of the candidate, was by written answers to questions in anatomy and surgery, by operating on the dead subject, in a public manner, and the actual application of apparatus required in fractures, dislocations, &c. &c. We congratulate the rising profession, particularly those who are struggling hard for knowledge, in the hope of meeting with a due reward, of this instance of improvement in a surgical appointment. For years past, in every hospital in London, money has been the sole agent by which a man has been elected to office; however talented, however industrious, however excellent might be his character, if he had not the means of paying for *honours*, he did not receive them; and, as might have been expected from such a system, the house-surgeons to our hospitals have often been ignorant, incompetent persons, committing blunders of a serious description; indeed, every way unworthy of the office they held. What honour is there now in being house-surgeon to any hospital in this metropolis, excepting the North London? there is none; it ought to be rather a degradation; for it is purchasing with money that which has a moral right to be purchased only by talent and industry. It is sacrificing on the altar of gold all that is honourable, all that is valuable in the medical practitioner; for it is notorious, that however ignorant, however depraved an individual may be, by paying for the appointment, he may become house-surgeon to any or all of the hospitals in London, with one exception — an exception which stands grandly from out the corruption and dis-

* The last house-surgeon to the hospital, Mr. Wallis, *was elected by concours.*

grace which belong to institutions of a like character, and which must inevitably have the effect of working a great change in these institutions, or carrying away every student from their wards. We see in the simple fact of this election, the dawning of a ray of reform in our hospitals, from which the clouds and the dreariness of corruption will be expelled.

The London Medical
AND
Surgical Journal.
Saturday, March 5th, 1836.

THE FREE HOSPITAL GREVILLE STREET.

The expulsion of two most respectable professional gentlemen from a public Hospital, under the imputation of having countenanced quackery, is an event of no ordinary occurrence. On the first appearance it bespeaks a purity and right feeling upon a professional subject, in the numerous persons whom charity and solicitation, and a thousand other motives, induce to subscribe their annual guinea to the support of a medical institution, for the relief of the poor, that one can scarce sufficiently admire. Nor, on the other hand can we express in terms sufficiently strong, our detestation of that hypocritical public virtue which the designing often make use of as a cloak, to cover the meanest motives of malice, envy, hatred, and all uncharitableness. We intreat the reader to suspend his judgment on the present occurrence, whether of admiration or detestation, until he shall have made himself master of the sequel.

Some time ago, a person calling himself George Franks, Surgeon, of Blackfriars Road, whose name is not in the list of the Royal College of Surgeons, in London, having made some improvement in the manner of preparing Balsam of Copaiba, applied to Mr. J. H. Green and Mr. Bransby Cooper to try its effects. These eminent gentlemen having found reason to approve of this new preparation, gave Mr. Franks their written testimonials of its efficacy, for the purpose, no doubt, of serving the inventor among their professional brethren, whose patronage would at that period have satisfied Mr. Franks' ambition. Having obtained these professional certificates for professional purposes only, Mr. Franks applied to Mr. Tweedie, one of the surgeons of the Greville Street Hospital, and to Mr. Hentsch, the Resident Apothecary of the same institution, and upon the authority of Mr. Green's and Mr. Cooper's certificates, induces these gentlemen to give his Solution of Copaiba a trial. And as they also found reason to consider it an improvement, these gentlemen gave him similar written testimonials. Mr. Franks' ambition now took a gigantic stride—and he resolved to try the efficacy of posting bills on the high-ways and bye-ways, with "Franks' Specific Solution," no longer "Solution of Copaiba" in rivalry and juxtaposition with Leake's Pilula Salutaria, Morrison's Vegetable Pills, Peede's Cure for the Itch, and other nostrums. Of course the medical certificates required to be doctored for this new application of their contents; and this was by suppressing in them all mention of Copaiba, and making these respectable gentlemen positively recommend to the *afflicted* public Mr. "Franks' Specific *Solution*." This outrage on gentlemanly conduct and professional decency did not pass unnoticed. The gentlemen who had been tricked out of their certificates, appealed to the Court of Chancery; but it is notorious in every sense, that "*Summum jus est sæpe summa malitia;*" the only relief they could get was the painful compulsion to Mr. Franks of giving their certificates without being garbled.

Mr. Tweedie, apprehending the attacks which have since been made on him at the Free Hospital, and suspecting that his certificate to Mr.

Franks would be made the pretence for hostilities, very properly addressed a letter to the Council of the Royal College of Surgeons, faithfully stating his position, and received the following very professional answer, to this effect: "that the Council could not believe the governors of any charitable institution would be induced to remove a surgeon from their establishment, for having tried a new mode of administering an old and well known medicine, and testifying to its effects." What the Council of the College of Surgeons, or any body of honourable men could not believe, has happened, ostensibly, indeed, for the motive of which the absurdity is so glaringly pointed out in the extract we have just given. Our readers will find in another part of this number, an account of the meeting at which this gross injustice was perpetrated in the case of Mr. Tweedie; but in two respects we are dissatisfied with our report: it does not do justice to the perspicuous, forcible, and eloquent address of Mr. Tweedie, who conducted himself on the trying occasion, with the coolness, firmness, and temper of a man whose head and heart were sound; nor can any report adequately describe the ruffianly conduct of the mob who got admission under the pretence of being governors.

How the business precisely ended cannot be well ascertained. For it so happened, after the name of Mr. Marsden was put forward in a very prominent manner by Mr. Lucas, the defence of Mr. Marsden seemed to engross all the attention of the noisy part of the meeting, and as it was evident to the rational and respectable portion of the governors who attended, there was no chance of justice in such a cabal, Mr. Tweedie and the respectable portion of the meeting went away, and left those who began the business to end it.

It is reported in some of the newspapers, that the motion for the expulsion of Mr. Tweedie was put to the meeting after he and his friends retired; that an amendment was moved and shouted down, the original motion carried, and a vote of thanks passed to Mr. Marsden and Mr. Greville Jones.

We shall not comment upon these proceedings at present, but we put it to the medical profession, whether a respectable member, declared so by the Royal College of Surgeons, is to be insulted and trampled upon, most unjustly, by a packed meeting of persons or governors, and to serve the purposes of interested rivals.

We are extremely glad at the result of the proceedings of the above meeting; it forcibly shews the iniquitous conduct of hospital and dispensary governors, some of whom are the veriest hypocrites and humbugs on the face of the earth; and well they may be, when physicians and surgeons degrade themselves by fawning on, and canvassing such persons.

We shall not dilate upon this theme at present, but we may on another occasion prove that these persons are, under the mask of charity, the veriest tyrants in society. The observation of twenty years, warrants us in forming an opinion; and we shall record it for the information of Mr. Warburton.

But were we in Mr. Tweedie's position, we should address the governors and public in a short advertisement, or circular; and shew them the real state of the above *charity*, and the unprecedented abuses in its management. We should also send a copy to the Commissioners of Public Charities, of which Lord Brougham is the chairman, who probably would "teach a lesson of prudence" to some of its remaining medical officers, which they would not speedily forget.

REMUNERATION OF MEDICAL PRACTITIONERS AT CORONERS' INQUESTS.

Mr. Wakley has successfully moved the House of Commons for leave to bring in a bill for the remuneration

of medical practitioners at inquests. Mr. Warburton and others have advocated the justice of his proposal.

A petition was presented, during the last week, to the House of Commons, by Mr. D. Whittle Harvey, in favour of the intended law, which was signed by eight hundred and twenty-six individuals, some of whom were the most eminent physicians and surgeons in London.

LONDON MEDICAL SOCIETY.

Monday, February 29, 1836.

DR. WHITING, PRESIDENT.

Partial Paralysis of the Lower Extremities. Mr. Robarts related a case which, he said, was not often to be found described in books. The patient was a coachman, 67 years of age, of very abstemious habits, and had always enjoyed good health. He applied to Mr. Robarts a short time since, being affected by a sort of pseudo paralysis of the lower extremities; he can walk a short distance without any inconvenience; but when he ventures beyond 50 or 100 yards he has great pain in the calf of the leg; he has no difficulty in taking the first step; sometimes he experiences a feeling of numbness. The pain is not constant in one part, sometimes it is in the thigh. It is sometimes so urgent that it disturbs his rest at night; and he describes it as though the leg was "iron-bound." When sitting he does not suffer from the affection. He first discovered some of the above symptoms in a slight degree during last summer; they had gradually increased since. His general health is good; bowels open; appetite good; urine clear; no tenderness on pressure; no pain in the abdomen; not the slightest trace of disease of the brain or spine. Mr. Robarts considered the above symptoms dependent on debility; a simple deficiency of power in the nerves which supply the lower extremity. Under this impression he prescribed small doses of sulphate of iron and quinine, and in the course of three weeks the patient had nearly recovered. What was remarkable in the recovery was the fact that one leg got well some time before the other.

Mr. Marian was inclined to believe the symptoms in Mr. Robarts' case were the result of some affection of the intestinal tube—probably chronic inflammation of the colon—portions of fæculent matter might lodge in the colon, and press upon the lumbar nerves, and by that means affect those given off from the lumbar plexus. He thought the iron, as given by Mr. Robarts, might have had the effect of increasing the tonicity of the colon, by that means relieving the affection.

Mr. Moore thought the disease might be referrible to some affection of the stomach. He was convinced that disorders of the alimentary canal were quite sufficient to account for such affections. He remembered a case in which a lady was affected with almost precisely the same symptoms as those that were present in Mr. Robarts' case, who, after undergoing a variety of treatment without benefit, consulted a gentleman, who examined the abdomen, and found a large collection of fæces in the colon. She was completely cured by taking small doses of the sulphate of iron.

Mr. Dendy thought that these instances of partial paralysis were dependent upon that remote sympathy of which we talk much, but know little. He had several children under him at the present time, with partial paralysis of the lower extremities, without any evident cause existing for the affection.

The President informed the Society that the anniversary meeting would be holden on Monday next, the 7th of March, at seven o'clock in the evening, and that at eight the usual business of the Society would be proceeded with. On the following day, Tuesday, March the 8th, the Members would dine together at half-past four. Dr. Blicke is to deliver the oration. Adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 27, 1836.

DR. ADDISON, PRESIDENT.

The discussion this evening, though it assumed an amusing character, would not much interest our readers. Mr. Costello, who has again resumed his visits after an absence of some months in the north of England and Scotland, informed the Society that he had visited all the Medical Associations in the parts of the country where he had been; and that he had made arrangements by which he should be enabled to bring before the Society some valuable papers which had been read before those Associations.

The President, before adjourning the Society, stated that he had received a communication from Dr. Uwin's, who would read a paper at the next meeting of the Society "On the *modus agendi* of medicines, and how far their therapeutic agency is regulated by pathological principles."

MEDICO-BOTANICAL SOCIETY.

Tuesday, February 23, 1836.

DR. CHOWNE IN THE CHAIR.

Observations on the Seeds of the Jatropha Curcas.

Dr. Sigmond, in making some observations on these seeds, said, that although the seeds of the jatropha curcas have been sent to us before, this is the first opportunity we have had of seeing them in their capsules; and on comparing them with those which, through the kindness of Mr. Battley, are laid before us, exactly as they are found in commerce, you will observe that they correspond in external appearance, and that they are essentially different from the seeds of the croton tiglium, which are also before you. The character of the fruit is fully evident—it is about the shape and size of a young walnut, it is of a yellowish colour; these are concealed under a bark, which is smooth, leathery, and strong; there are three seeds invested in two coats; they are oval oblong. The external coat is brittle, crustaceous, and blackish. These seeds, when ripe and fresh, are to be slightly roasted, and infused in spiced wine, when they act, if taken in number not more than two or three, as gentle evacuants of the bowels, producing neither nausea nor any griping; in larger quantities they are emetic and purgative, and if in still larger quantities, are active poisons. The expressed oil which is obtained from them acts in a similar way, and three or four drops, added to castor oil, increases its purgative qualities, or the same quantity may be taken in mucilage of gum arabic, with good effect. The expressed oil has likewise been used with very excellent results externally, in the cure of the itch, in various herpetic eruptions, and it has likewise been recommended in chronic rheumatism. The effect, when taken internally, is very quickly produced; large copious alvine evacuations very speedily following upon it, sometimes within half an hour, besides which, the secretion of urine is considerably augmented. In apoplexy, in obstinate constipation, in dropsy, it appears to be of great importance. The following experiments, detailed by Orfila, prove that the seeds possess highly poisonous properties, that they act more strongly when introduced into the stomach, than when applied to the cellular tissue, and that the effects depend upon the violent inflammation they produce, and on the sympathetic action on the nervous system:—

Experiment 1.—At eight in the morning, three drachms of this seed, deprived of its ligneous covering, and reduced to a paste, were introduced into the stomach of a robust dog, of middle size, and the œsophagus was tied. At a quarter before nine, the animal began to make efforts to vomit. At nine he uttered some plaintive cries. At ten he could no longer walk; he remained lying on the side, in a state of great insensibility. He died an hour after. He was opened at two o'clock. The whole of the digestive canal was red on its external surface; the mucous membrane of the stomach was of a deep cherry-red throughout its whole extent; the interior of the rectum was of a fiery-red; the lungs were crepitating, and of a reddish colour; the ventricles of the heart contained black fluid blood.

Experiment 2.—At eight in the morning this experiment was repeated with a drachm of the same paste. The animal only felt during the day inclinations to vomit. At ten in the evening, he was insensible, could no longer stand, and made deep inspirations. He died in the night. The digestive canal was very much inflamed in the interior and exterior; the coats of the great intestines presented throughout their whole thickness, a colour which appeared black; in separating them from one another, it was perceived that this colour was an extremely deep red; there was no eschar. The lungs presented several livid patches, dense, and distended with blood.

Experiment 3.—Another animal, that had taken a drachm and a half of the same paste, died at the end of ten hours, and the same symptoms and appearances on dissection were observed.

Experiment 4.—At eight in the morning a drachm of the same paste, mixed with two drachms of water, was applied to the cellular texture of the thigh of a dog. The animal experienced no remarkable phenomenon during the day. The next at noon, he was lying on the side; his breathing was difficult and profound. He was placed on his feet, and fell down like a lifeless mass; his limbs, far from being stiff, were extremely relaxed; the organs of sense no longer performed their functions. He died two hours after. The digestive canal was sound; the lungs presented livid, dense patches, distended with blood; the limb operated on was very much inflamed; the redness extended to the fifth sternal rib. There was no eschar.

The seeds of the jatropha curcas are a subject of much interest to us; they have been thought by Caventon to yield the oil which is generally called croton oil; and he has made some experiments which he thinks proves that the oil obtained from the pignons of India, as they have been called, differs in no respect from the croton oil procured directly from London. This, however, is erroneous; although the medicinal action is nearly the same, yet there is a great difference in the colour, odour, flavour, and general appearance of the oils that are obtained from the seeds of these two plants.

The jatropha curcas or angular leaved physic nut is exclusively a native of South America; but the negroes every where employ it largely for medicinal purposes. It belongs to the natural order Euphorbiaceæ, which as you are aware embraces a number of families, various species of which contain seeds that are drastic purgatives, and which have acrid properties. Amongst these the seeds of the croton tiglium, the jatropha curcas, and the ricinus communis, bear a striking resemblance in therapeutic energy to one another. The order derives its name from a plant which has some curious historical recollections interesting to the botanist. Pliny tells us that there were two celebrated physicians, brothers: Antonius Mucsa, and Euphorbus. The first restored to health Augustus Cæsar, when labouring under diseased liver, by cold applications externally, and the use of the jactuca internally. For this cure, Augustus erected a statue to Antonius Mucsa. The other brother, Euphorbus, was, at the same time, physician to King Juba, who determining to reward him for a similar service, consecrated to him the Euphorbium, which still bears his name.

The jatropha curcas has been reared at the Royal Gardens at Kew, and in the Hortus Kewensis you will find eight species of the jatropha enumerated. The best engraving is in the work of Jacquin—in which the seeds and their capsule are very well delineated, leaving no doubt in the mind of their difference from those of the croton tiglium, and the identity of those which are now before you. Of the analysis of the jatropha curcas, made by Messrs. Pelletier and Caventon, I know not how to speak, as it certainly appears to me they allude to the oil of croton; and as the mode of its preparation in India is not known, whether obtained by expression or boiling, it has been imagined that the seeds of both plants are employed; and this may account for the variation of strength so constantly complained of by those who have made experiments with croton oil, in some cases a single drop having produced hypercatharsis, whilst ten drops of other samples have been given without effect.

Hospital Reports.

NORTH LONDON HOSPITAL.

Sarcomatous Tumour of the Upper Jaw Bone—Removal.

Mr. Liston on the 27th removed the left superior maxillary and malar bones from a woman, aged 21, who had come up from Hull for the purpose of being operated on by him. The tumour first made its appearance about four years since; and since then she has submitted to two rather severe operations for the purpose of getting rid of it. At the last one, part of the alveolar process of the superior maxilla was removed, with a portion of the tumour, which has, however, continued to increase to the present time, and is now about the size of a small cocoa nut, occupying the whole of the left cheek, drawing the mouth on one side, and obstructing the vision of the left eye. Her health is good, and she does not complain of much pain. The tumour on examination is found to occupy the whole of the superior maxillary bone, and the whole of the palate internally; being unattached on the right side, a great portion of the velum is concealed by its projecting over it.

Operation.—After extracting the central incisor of the right side, the operator began his first incision a little below the inner angle of the left eye, and carried it obliquely under the ala of the nose, detaching the cartilage from the bone, and then continued it through the lip in the mesial line. The second incision is as commenced at the prominence of the cheek, and carried to the angle of the lip. He then reflected the flap upwards, which was held by an assistant. At this step of the operation the tumour was found to extend considerably backwards; another incision was made in the line of the zygomatic arch, so as to pass into the perpendicular one at right angles; the whole of the tumour was now exposed. Mr. Liston, with the bone-forceps, now divided the nasal process of the superior maxilla, and cut through the zygomatic arch near the auricle, and then through the malar bones at the transverse facial suture, into the spheno-maxillary fissure. It now remained to separate the diseased maxilla from its fellow of the opposite side, which was accomplished with great facility by strong scissors, leaving the palate bone and soft palate entire. The diseased mass was now readily removed, involving the whole of the superior maxillary, and the whole of the malar bone. A large artery, which was freely bleeding, was tied, and the edges of the flap brought together by three hare-lip sutures, and one point of interrupted suture. The operation lasted about six minutes. The tumour was entirely removed, and found to be of a firm cartilaginous character, interspersed with spiculæ of bone.

Correspondence respecting the Lectures of the Professor of Anatomy and Surgery in the University of Dublin.

From Dr. Macartney to the Provost of Trinity College.

Sept. 28, 1832.

My Dear Sir—Some regulations were made last year in Edinburgh, by which no

course of anatomy or of surgery will in future be recognized as such, unless the lectures be delivered *five* days in the week, during the winter six months.

I don't think this time too great to devote to subjects of so much importance; but if it were otherwise, our school would lose credit by not furnishing as full courses as are expected elsewhere: and the interests of all the Professors, as well as mine, would be seriously injured, if the numerous class of medical students that graduate in Edinburgh, should be compelled to obtain their qualifications in anatomy and surgery in any school except our own. Much inconvenience has been always experienced both by myself and the students, by having only *one* hour in the day allotted to two courses of lectures (anatomy and surgery), each of which is a subject of greater extent than those taught by the other professors.

I have been obliged, hitherto, to detain the pupils in town after the medical session, and lecture sometimes three times a day; and even so, have not satisfactorily terminated my lectures. I should add, that I am at present necessitated to give on surgery a *shorter* course than any other, on the same subject, in the United Kingdom, or, I believe, in Europe. Under all these circumstances, I only wait the sanction of the Board to prolong my Courses to the necessary extent: and I shall be much obliged by your bringing the matter before the Board, if you can, before you leave town, as the time has arrived for making the winter arrangements.

Yours truly,
JAMES MACARTNEY.

Upper Merrion-street.

From the Provost, to Dr. Macartney.

MY DEAR DOCTOR—The Board has agreed to sanction your proposal of lecturing at three o'clock, *four* times a week, in surgery, in addition to your lecture every day in anatomy.

Yours very faithfully,
BAR. LLOYD.

Provost's House, Sept. 29, 1832.

From Dr. Macartney, to Dr. Barker, Registrar to the Professors in the School of Physic.

Lucan, Oct. 4, 1832.

MY DEAR DOCTOR—I have obtained the authority of the Board for using the hour of three, four days in the week, to enable me to give the full Course of Surgery—I need, not, therefore, come into town to attend the meeting of Professors to-day. The Provost says he sees no objection to two Professors lecturing at the same hour, as the pupils have three years to attend us all.

By fixing ten o'clock for visiting the hospital, an hour would be gained for the lectures; and the patients would then be able to get, in proper time, the medicines prescribed for them.

Shall I trouble you to drop me a line, to say what you do at the meeting?

Yours truly,
JAMES MACARTNEY.

Trinity College, Oct. 13, 1835.

SIR—I am directed, by the Board, to communicate to you their order of this day, which is as follows:—Ordered, that Dr. Macartney shall not lecture at the hour from three to four o'clock, that hour having been already assigned to another of the Professors of the School of Physic.

I am, with much regard,
Your very humble servant,
ROBERT PHIPPS, Registrar.

To James Macartney, Esq., M.D.

Resolved by the Board, that this order be communicated to the King's and the Queen's College of Physicians, through their Registrar.

The aforesaid order having been violated, it is now further ordered, that the doors of the Anatomy House shall be closed from three to four o'clock every day.

By direction of the Board,
ROBERT PHIPPS, Registrar.

Nov. 28, 1835.

From Dr. Macartney, to Dr. Phipps.

Upper Merrion-street, Dec. 4, 1835.

SIR—The enclosed memorial was prepared and signed by a majority of the class attending me; and would have been signed by all (except three or four, who are not seeking information, but the technical qualification of a certificate), when a report was heard, that those pupils would be fined, who should sign any memorial.

I therefore send the copy of the one adopted for the inspection of the Board; and beg to know if the memorial will be received with the signatures of the pupils, without visiting them with any blame.

I am, sir, your obedient servant
JAMES MACARTNEY.

The Memorial of the Students of Anatomy and Surgery in the University of Dublin to the Provost and Board of Trinity College.

Your Memorialists beg leave to state, that they are medical students, attending the lectures on anatomy and surgery in Trinity College; and that many of them have come from England, expressly for the purpose of studying anatomy and surgery in the university. The greater number of your memorialists are matriculated students; but not being students in arts, are precluded from taking a medical degree here, and are preparing themselves for graduation in the University of Edinburgh, or for the diploma of the College of Surgeons in London, in order to which, *complete* Courses of Anatomy and Surgery are required. Of your memorialists, some have

become students in arts, for the purpose of obtaining here a complete medical education, and a medical degree; and all have enrolled themselves as pupils of the University, in order to acquire that extended and useful course of medical education which the present state of medical science, and the high reputation of the Professor of Anatomy and Surgery, led them to expect. Your memorialists further beg leave to say, that they and their friends have made various arrangements, which cannot now be altered without great inconvenience, and some pecuniary loss to themselves, in the expectation of attending the lectures on surgery at three o'clock; and they do not wish, for this reason, to attend any other lectures at that hour. They therefore most respectfully beg, that the Board will revoke their recent order, and permit them to attend the lectures on surgery, from which they have every reason to expect the most useful information, and certificates of which are, to many of them, indispensable towards their attainment of a medical degree.

From Dr. Macartney, to Dr. Phipps.

Upper Merrion Street, Dec. 8, 1835.

Sir—The Board not having signified their pleasure respecting the Memorial of the Pupils, and the door of the anatomy house having been locked Saturday, and to-day, it may be concluded, that it is intended to persist in the exclusion of the pupils from the surgical lectures at three o'clock. Those who purpose graduating here, are very anxious to know whether the Board will grant the liceat for examination, without my certificate for surgery; or if they will accept a certificate for the *imperfect instruction* on *both* subjects, which can be given at *one o'clock*. The hour of twelve (the only one unoccupied by other professors), would be totally impracticable, as some time is necessary, to make arrangements for each of the subjects I teach; and would also be objectionable, as interfering with tutors' lectures, and those on Divinity. Some gentlemen are attending me this year, who wish to qualify for both the clerical and medical professions, on account of the present uncertainty of provision in the Church. I must beg that the Board will condescend to give me an answer on these points, as involving so seriously the interests of the students.

I am, Sir, your obedient Servant,
James Macartney.

From Dr. Phipps, to Dr. Macartney.

Sir—In replying to your letter of the 8th Dec. inst., I am directed, by the Board of Trinity College, to communicate, that they will accept your certificate for the attendance of students on your Course of Lectures, given at *one o'clock in Anatomy and Surgery.*

I am, Sir, your very obedient servant,
Robert Phipps, Registrar.

Trinity College, Dec. 15, 1835.

In consequence of the proceedings above related, Dr. Macartney, in order to accommodate the pupils as far as possible, determined to give, *during the present season*, five lectures in the week on anatomy at one o'clock, and one lecture on surgery in the week; and as the latter would be deemed insufficient in every institution except Trinity College, he returned, to those pupils who were preparing for the surgical diploma, the money, to purchase the necessary Course of Surgery from other teachers in Dublin.

DR. HANCOCK'S REPLY TO MR. BATEMAN.

To the Editor of the London Medical and Surgical Journal.

Sir—I observe in your Journal of the week before last (page 128) Mr. Bateman's note, in which he proposes to give a full explanation regarding his preparation of Sarsaparilla, of my approval of the same, and memoranda for pecuniary assistance. I was not anxious to anticipate his *exposé;* but now think it proper to forward his recent letter to me, and copy of my reply, and to state that I had no acquaintance with Mr. Bateman till I saw one of his first handbills, about two years ago, in which he quoted a paper in the M. B. Trans., on the preparations of Sarsaparilla. I saw nothing objectionable in it, and on passing that way I called occasionally at his shop in Oxford Street. He satisfied me with respect to his mode of preparation, and I was certainly not displeased to find it substituted for the old, and, as I conceived, absurd and destructive methods usually pursued:—I gave him some corrections and additional matter for his prospectus regarding the preparation of sarsaparilla.

Having lent divers sums, and received abundant promises only, I had occasion to borrow a trifle, and this Mr. B. readily furnished. I shortly after repaid him; but for a part he desired to receive, in lieu of the money, some of the Siruba, or native oil of laurel, so termed, to make some trials of: this I readily consented to, being desirous of seeing it applied to divers practical uses in which I knew it to be valuable; and he had already, I believe, formed it into some cosmetic or detersive ointment, for which it was not ill adapted. Respecting the memoranda for pecuniary aid, I suppose Mr. B. must allude to some note or receipt I may have given him for the money borrowed, for I know of nothing else he could have meant.

This is all I know of the affair, till recently Mr. Bateman annexed my name to the stamp, which made it appear to every one that the preparation was sold by my appointment. I wrote to remonstrate; but, receiving no reply, I supposed he disregarded my letter, which subsequently, however, I was mortified to find had not reached him, owing to a mistake in the direction. In the mean time, I made the declaration which then seemed necessary—more especially to satisfy other gentlemen, who felt themselves compromised by the advertisement in question. For my own part, it would have caused me little or no uneasiness—I have lived too long to be dismayed by such trifles.

I have the honour to be, Sir,

Most respectfully, your obedt. servt.

J. Hancock.

Commercial Road, Feb. 29, 1836.

Sir—From the same page of your Journal (before cited) I learn that a certain medicine, kept a secret in Demerara, has become famous for the cure of intermitting fevers, in the hands of Dr. Warburg. I may be allowed to state briefly, that when at Liverpool in August last, I was told by a gentleman recently from the colony, that the said febrifuge is by some considered to be the same as one I employed in Demerara with great success; and that not merely against intermittents, but in those infinitely more perilous—the remittent, typhoid, ataxical fevers—as stated in the M. B. Trans. and other papers, subsequently read by Dr. Sigmond. I commonly used these barks, two or three, blended in a hot *infusion*, which induced perspiration, and this I found the most efficient method. It was given in every stage, but especially during the paroxysm in typhoid and malignant fevers. Its action being at once tonic, antispasmodic, and deobstruent—opening the various emunctories of the body: unlike the cinchona, which, in actual states of fever, is apt to constipate, cause obstructions, irritate, and favour inflammation. A saturated tincture was also formed, containing the active principles of the remedies. To this, in some instances, for obstinate intermittents, I added a small portion of the arsenical solution; but this was seldom necessary. The use of vapour baths and frictions, diluents, topical bleeding, &c. were resorted to according to circumstances.

With respect to the forenamed discovery, it is stated that "the inspector of the English hospitals has forwarded a report to his government on this subject, and he has no doubt but that a reward will be conferred on Mr. Warburg for his disinterested care of the fever patients, who were almost all cured in a few days, when they followed his directions." This disinterestedness would better appear, perhaps, in anything else than a nostrum or a secret remedy; but the doctor is doubtless aware of the charm attached to mystery. A dozen bottles have been sent to the Academy of Sciences of Paris, to be tested. I presume Dr. W. went out to the colony since I left it. I trust that the medicine will be examined, and his services duly rewarded. It is well known that many of our most useful medicines have been derived from nostrums.

There is no proof, however, nor even probability, that he makes use of the same remedies I employed; there are, indeed, a multitude of valuable febrifuge plants in the warm regions of Guiana and other tropical countries. This boon is not, in conformity with prevailing prejudices, confined to certain barks brought from the mountains of Peru; on the contrary, the most precious anti-febrile remedies abound more especially in the sultry and humid parts—on the very spots, as Providence has ordained it, where deleterious miasms and the most fatal fevers prevail—and far more so than on the mountain regions, which are healthy and comparatively free from fevers in general. The cinchona is a mountainous tree, chiefly found amongst the Cordeliera of the Andes, and very far distant from the feverish regions. We often hear it stated indeed, that those parts of Peru where the cinchona grows is very unhealthy. This is a popular error, and a mere invention.

It should be recollected that the cinchona bark is useful chiefly in intermittents; and not in the more pernicious fevers until the paroxysm has terminated—when all danger is usually over. If employed earlier, it will, as we know by experience, excite the brain and nervous system, and often prove fatal. It is not, therefore, in my humble opinion, so strictly entitled to the name of a febrifuge as is generally imagined: a proper and direct febrifuge is that only which, by a peculiar power, exciting the absorbents and exhalents of the body, tends to arrest fever and inflammation, and remove the most dangerous symptoms. Here, then, is another prevalent error in the estimation of this "grand, heroic, this divine remedy," cinchona. Mankind are prone (both the learned and ignorant), to be led away with popular fancies. Just so, or far more indeed, is the ginseng estimated in China, as an infallible remedy—as are Morison's pills by every fool in this country. I have long entertained but a moderate opinion of this "grand febrifuge"; and for these reasons—first, it is not a real febrifuge—it will not, as the term imports, drive away fever; secondly, its use is pernicious or dangerous in the direct ratio of the danger of the attendant fever, or inflammation, (which in fact are one and indivisible). Intermittent fevers, which depend on smaller degrees of inflammation or congestion (on a habitual periodical, intermittent congestion) of the internal or great vessels, spleen, &c., are

rarely attended with danger. Such, indeed, are removed, or their recurrence is prevented by the said "heroic remedy," from its bracing the fibres and imparting a power of resistance to the impetus of the blood, and preventing its accumulation in the internal organs.

The foregoing position will scarcely be admitted perhaps, except by a few who, like yourself, are aware that inflammations are proximately founded in debility, or want of tone in the fibres of the part inflamed or engorged*, and not on the Hunterian delusion, which couples it (inflammation) with energy or increased action. This delusion is, I believe, the basis of most of our errors and misconceptions, which present an insuperable obstacle to the progress of medicine as a rational art or science—inasmuch as, inflammation is the essential or primary form of most other disorders. It is the throbbing or pulsation in parts inflamed that misleads us. We regard it as expressive of increased tone or activity in the part:—whereas, it is in reality just the reverse; the fibres of the part inflamed are passive; and having lost their wonted tone and resistance, are unable to contract and propel the blood forward in its proper channels; they consequently throb or give way, and thus respond to each pulsion or systole of the heart and great arteries. The apparent increased action, therefore, depends on a passive state, and not increased activity in the vessels or fibres of the suffering part.

To show that this view of the nature of inflammation is correct (i. e. as dependent on debility, and not increased action or energy), it is sufficient to consider the usual exciting causes of inflammation, which are cold, contusions, or whatever tends to subvert or break down the vital power and resistence of the fibres.

I am, Sir, your very obedient servant,

To Dr. Ryan. J. HANCOCK.

FRENCH HOSPITAL REPORTS.

A WOMAN was admitted into the Hotel Dieu, under the care of M. Chomel, with pain in the right lower extremity. This pain commenced at the sciatic notch, occupied the posterior part of the thigh to the knee, from which it extended to the external malleolus; the motion of the limb was painful, and progression difficult; there was not the slightest change of colour of the skin, neither redness or swelling of the articulations; from these symptoms, it was plainly sciatic neuralgia; but was this affection idiopathic or symptomatic, or was it the result of rheumatism? Since the progress of pathological anatomy, idiopathic neuralgia becomes more rare. Thus neuralgia, formerly designated hepatic, and nephritic colics, are in a great majority of cases, connected with calculous affections of the kidneys or liver; and sciatic neuralgia is often symptomatic of an abdominal lesion. M. Chomel has lately seen a lady who suffered for several weeks from fits of sciatic neuralgia; these attacks have completely ceased from the time that a tumour developed in the iliac region was dissipated, and a quantity of pus had exeretion from the anus. In this case, the neuralgia was evidently symptomatic of the tumour in the iliac fossa.

There was a case of sciatic neuralgia, lately seen at the clinical institution, which was produced by a stercorale tumour, that yielded to the use of purgative lavements.

On exploring the abdomen of the patient who was the subject of these remarks, an abnormal tumefaction was observed. In the whole of the right side, palpitation demonstrates the existence of an imperfectly circumelevated tumour, that seemed to result from former adhesions between some of the intestinal convolutions. The patient, when questioned about her previous state of health, said, that about six months since she had acute peritonitis, and that 40 leeches were applied to her abdomen; from that time she suffered from gout, and the digestive functions were also deranged. From all these circumstances it would appear that the abdominal tumour arose from old adhesions. There was nothing particular affecting the uterus; nothing that indicated more than neuralgia of rather a rheumatic nature; the patient never having suffered from this latter affliction, it is very probable that the neuralgia arises from the abdominal tumour, and consequently it is against that our therapeutic means should be directed.—*Gaz des Hop.*

MEDICAL JURISPRUDENCE.

Genital Disease in a Child—Charge of Violation.

I HEREBY certify that I have examined the daughter of Mr. * * * aged four years, who was supposed to have been violated, and infected with the venereal disease.

The child was confined to bed, complained of burning pain and weight in the genital organs, of headach, coryza, difficult respiration, flying pains in the chest, and fits of coughing, that were very troublesome; the young patient was pale and delicate, the pulse feverish, the skin hot, the face red and swelled, and the eyes watery.

On examining the genital organs, I observed them to be red, swelled, and painful; the orifice of the vagina was dilated; there was

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* This I may presume from the correspondent opinion you expressed on my MS. some three or four years ago.

no hymen; a yellowish white liquid flowed from the vulva, of a disagreeable smell, which stained the linen, and which when dry formed yellowish and shining crusts; on the internal surface of the thigh there were small ulcers; on the internal face of the larger labia, which were rather deep, with red, irregular edges, covered with a serous, opaque, thickish liquid, mixed with blood, and also forming crusts.

From these observations there might be two conclusions drawn, that the local symptoms would seem to indicate, if not complete violation, at least an attempt to introduce some large body into the genital organs, or that this pale, weak, and delicate girl was labouring under a catarrhal affection, to which these symptoms might all be attributed.

The following extract is from a report drawn up by the Faculty of Medicine in Paris, in the name of a Commission, composed of MM. Leroux, Dubois, Desormeaux, and Dupuytren:—

"We are the more inclined to this latter opinion, as the season and atmospheric constitution predispose to this sort of disease; and we have every year many cases brought to us in consultation, where little girls are labouring under all the above enumerated symptoms, and which are totally independent of any violence. We shall add:—

"1st. That the rupture of the hymen, whether it appears to be recent, or of previous occurrence, may be produced by a great many different causes, without our being able to determine to which of these causes it is to be attributed.

"2ndly. That the appearances of the large and small labia are the usual consequences of all inflammations of the external genital organs; we cannot look on this as a proof of violence.

"3rdly. That ecchymosis is frequently one of the results of inflammation in tissues that are peculiarly vascular, as the vulva.

"4thly. That a yellowish, greenish, or bloody discharge, rather indicates a degree of inflammation than determines the cause.

"5thly. That dilatation of the vaginal orifice may perhaps be the effect of relaxation of the parts, as well as that of an effort made to introduce a foreign body into the passage.

"From all these considerations, we should say, that there was no proof of violation; that no symptoms of syphilis were present; that, according to all appearances, this little girl was affected with a mucous discharge that would yield to proper treatment.

"In testimony of this, we have drawn up this report, which we certify to be conformable to truth and to the principles of our science."

—o—

Case of Violation of a Girl aged Eleven Years.

I hereby certify, that this the 30th of June, 1819, I visited the daughter of Mr. ——, who was said to have been violated at eight o'clock in the morning.

I found the said girl, from 11 to 12 years of age, complaining of severe pain of the genitals, thighs, pelvis, and lumbar regions. I was informed that Mr. ——, of about 25 years of age, had on that morning dragged her violently into a room, and abused her in spite of her resistance; that she had not previously been affected by any discharge, and that her general health was good, which her appearance seemed to announce.

I first observed that the anterior surface of the arms of this young girl were ecchymosed, which she told me was caused by the violence with which she had been held by Mr. ——.

On examining the genital organs, I perceived—

1st. That the external labia were separated, tumefied, and red on the internal surface; that the internal labia were very much swelled, and showed the traces of lacerations covered with a sort of mucus; that a yellowish-white liquid of the consistency of thick mucus flowed from the vagina.

2nd. That there were visible remains of the hymen, which were still bloody.

3rd, That above the symphysis pubis on the external and internal parts of the thighs, there were ecchymoses, of which the uniformly red colour proved their recent occurrence.

From these observations I may conclude—

1st. That a large foreign body had been introduced or attempted to be introduced into the vagina.

2nd. That this young girl had been recently deflowered.

3rd. That the introduction or attempted introduction of the penis, or of any body whatever into the vagina, had been against the consent, and notwithstanding the resistance of the complainant, which is proved by the ecchymoses observed on the arms, thighs, &c., or at least I cannot find that these lesions are to be attributed to any other cause.

Signed at London.

BOOKS.

The Cyclopædia of Anatomy and Physiology. Edited by R. B. Todd, M. B., &c. Part V. March.

This work maintains the excellence of its earlier numbers.

On the Analysis of the Blood and Urine in Health and Disease, with Directions for the Analysis of Urinary Calculi. By G. O'Rees. 8vo., pp. 147.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

For pp 193-224
See between pp 336-337

THE

London Medical and Surgical Journal.

No. 8. SATURDAY, MARCH 19. Vol. I.—(1836).

CLINICAL LECTURE
ON
QUARTAN AGUE.
BY PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Case—Cause of Ague—Malaria—Treatment—Bleeding, Local and General—Purgatives—Emetics—Opium and Calomel—Spasmodic Remedies—Sulphate of Quinia—Piperina—Liquor Arsenicalis, or Fowler's Solution.

GENTLEMEN—The following is a case of quartan ague, upon which I intend to make a few remarks.

James White, ætat. 33, admitted on Feb. 5th, 1836, lighterman, of a plethoric habit of body, and his complexion of a rather sallow hue. He has been obliged to work in different parts of Kent for the last twelve months, where agues are very prevalent. He has led a very regular life, not having been addicted to drinking, and has enjoyed very good health until last August, when he was suddenly attacked with pain in the head, dulness of sight, great langour and lassitude, loss of appetite, sickness, shivering, and chattering of the teeth. At the commencement the attacks did not come on periodically, but he never had the cold stage without the hot one succeeding it. The fits, after a short time, became quotidian; in about a fortnight after, they became tertian, and for the last five months they have been quartan. He has been in the Chelsea dispensary, where he had some preparations of bark given him, but not taking his medicine regularly, he derived no benefit from it. The attacks begin at present generally at ten or eleven o'clock in the forenoon, on the third day. The cold stage comes on with a sensation as if cold water were running down the back, shivering, chattering of the teeth, langour, and great debility. During this stage he is sick, rather thirsty, and his skin is dry and rough (cutis anserina); this continues for two or three hours, when the hot stage comes on, with severe pain in the head, flushing of the face, throbbing at the temples, great thirst, and heat of the skin; after these symptoms have continued about three hours, a copious sweat breaks out, and during the remainder of the day he feels very weak and languid, and has a dull pain in the head. During the interval he feels pretty well. The pulse is 110, and rather full, during the hot stage of an attack, and 90, and small and feeble, in the intervals; the skin is warm and moist; (the case was taken during the decline of the hot stage); the tongue is furred towards its base; the appetite is pretty good in the intervals; he is generally rather thirsty; the bowels are constipated; the urine is light-coloured during the cold stage, but during the latter part of the hot and sweating stages, it is high coloured, and deposits a lateritious sediment.

℞. Pulv. ipecac. ℥ss, dimid. hor. ante paroxysmo sumend.

℞. Quininiæ sulph., gr. ij;
Inf. quassiæ, ℥iss;
Acid. sulph. dil., *m* viii. 2nda quaque hora intervallo sumend.

℞. Hydr. submur., gr. j;
Opii, gr. j, hora somni o. n. sumend.

16th. The emetic was thrown up as soon as taken, and did not check the attack, which came on at the usual time. The cold stage lasted about two hours and a half, and was succeeded by the hot fit, but there was scarcely any sweating stage. The pulse, during the hot stage, was 110, full and strong; there was great pain in the head, and thirst, together with heat of skin.

17th. Feels pretty well this morning, but complains of lassitude. Omitte medicam.

℞. Piperinæ, gr. iij;
Extr. conii, gr. j. Ft. pil. 2nda q. q. hora inter paroxys. sumend.

19th. The attack came on at the usual hour this morning; the cold and hot stages lasted each about three hours, but there was scarcely any sweating after them.

22nd. The attack did not come on till half past twelve o'clock to-day. The cold stage was as severe as it generally is, but the hot fit only lasted about an hour and a half, and was attended by very little pain

in the head, or heat of the skin. Pulse 105, and full. There was no sweating stage at all. As his bowels are costive, he was ordered—

Hydr. submur. gr. v, statim sumend.;
Haust. sennæ comp. cras mane sumend.

25th. Owing to some neglect, the piperina has been omitted for two days. The attack this morning came on two hours before the usual time, and was very severe during the cold and sweating stages.

26th. Pretty well this morning.

℞. Pulv. ipecac. ℥ ss, ante paroxys. sumend.

℞. Sol. arsenicalis, *m* xv;
Inf. quassiæ, ℥ iss. 3tia quaque hora sumend.

℞. Hydr. submur., gr. j;
Opii, gr. j. h. s. s. o. n.

28th. The attack came on this morning at twenty minutes past nine, and continued till the evening. The cold and sweating stages were much severer than usual: he says it is the severest fit he has had since his admission into the hospital.

29th. Feels very cold and weary; pulse 105, and soft.

March 3rd. The attack did not come on this morning, and he does not feel worse than usual.

The type of this case is, gentlemen, *quartan*, that is, an intermittent in which the paroxysm returns after an interval of seventy-two hours; and in most cases recurs in the afternoon, from two to five o'clock. In this case there is the anomaly of the paroxysms invariably coming on in the forenoon. The duration of the paroxysm is that of the quartan, namely, six hours; and two of these are taken up with the cold stage.

Agues are most prevalent in spring and autumn; the quartan commonly makes its attack in autumn, the tertian and the quotidian in the spring.

This patient, although a full bodied plethoric person, yet has that pallid countenance which often indicates some affection of the abdominal viscera. The pulse is small, feeble and frequent, but nevertheless he does not complain of those pains in the shoulder, and that pain on pressure in the epigastrium and hypochondria, that always more or less accompany visceral disease in ague.

The remote cause of ague is almost universally admitted to be malaria; now what is this? It is not certainly any decomposition or actual change in the chemical components of the atmosphere. M. Desege analysed the air of a marsh, and found it to contain 78 parts of nitrogen and 21 of oxygen, which is the general composition of the atmospheric air. Exhalations from stagnant water, decaying vegetable matters, marshy or clayey soils, are necessary for the production of agues; moisture in every instance is necessary: and ague may perhaps arise sometimes from other causes than malaria. Cold and moisture sometimes may be sufficient to produce it. It is well known that agues and rheumatisms used to occur more frequently in the navy, when the decks were oftener washed than they are at the present time; and agues are most common in those countries in which fogs are very prevalent; they are, also, more frequent in foggy than in clear dry weather. We know that carburetted hydrogen is always disengaged from marshes, and from the decomposition of vegetable matters; and it is well known that agues have been of much more frequent occurrence in this metropolis since 1822 or 1823; consequently I would ask if gas has anything to do with this circumstance? Free carburetted and sulphuretted hydrogen gases, escape from the fractured or defective pipes; and much moisture is formed by the combustion of the enormous quantity of gas nightly consumed in London. I throw this idea out, gentlemen, as a mere hypothesis—an exercise for your minds—not as a fact for your adoption.

The effect of these causes of agues may be guarded against by nutritive diet, and that regimen which is conducive to health. Good living is one of the best preventives; on the other hand, physical and mental depression predispose to this, as to most other diseases: whatever impairs strength—overfatigue, debauchery, drinking, &c.—will predispose persons exposed to malaria, for the reception of this disease.

Treatment.—Having admitted that our patient is a plethoric man, you may demand my reason for not bleeding him. In reply, I have only to say it has depended on the impression in my mind that his vigour is not equal to his bulk, as, were that not the case, the pallidness of his countenance would not be so striking. The chief use of the lancet is to bring the condition of the patient into that state in which the intermissions are likely to become distinct and well-marked.

When local inflammations and congestions are present, the disease often resists antiperiodic remedies. If the organ affected can be distinctly ascertained, local bleeding may be necessary, and is preferable to general bleeding, which is useful only in the more inflammatory forms of the disease, and in full plethoric or athletic persons. In these latter instances general blood-letting may be had recourse to in the hot stage, especially in its commencement, when from the violent degree of reaction, important internal organs are threatened. General bleeding has been recommended in the cold stage of intermittent fevers, but my own experience, and that of many others, is decidedly against its employment in that stage of the disease. In the cases of Dr. Mackintosh, in which it proved useful, and in a few

in the Cambridge hospital, it is probable there was some local inflammation or congestion of one or more of the internal organs, either of the spleen, the liver, or some other viscus; but generally bleeding is a very hazardous remedy in this stage of the disease.

Purgatives are useful adjuncts, and are only contra-indicated when much debility exists.

Emetics, when given at the commencement of the paroxysm, shorten the cold stage, and render it milder, breaking the catenation that keeps up the disease; they are in every case a necessary preparation for antiperiodic remedies: but emetics are contra-indicated by tenderness in the epigastric or hypochondriac regions.

I order opium and calomel on the principle of improving the secreting system, and aiding the removal of those complications that always stand in the way of curing the disease. The use of opium in ague is indeed as old as Galen: when it is administered by itself in a full dose, it shortens and abates the violence of the paroxysm, and promotes perspiration, the natural crisis of ague. It promotes sleep, too; and Dr. Lind affirmed that it lessens the tendency to liver affections and dropsy, as the result of agues.

We come now, gentlemen, to the consideration of what are termed antiperiodic remedies—medicines administered to prevent the recurrence of the paroxysms.

The principal medicine generally given with this view, and with the most beneficial results, is the sulphate of quinine. It was not followed up in this case, from the idea of the existence of some visceral affection. Piperina has been found useful in arresting the paroxysms, by some Italian physicians, and it has been successfully prescribed in this country. The quantity ordered in this case was three grains every two hours between the paroxysms; but the paroxysms became more severe during its use than before; consequently I ordered it to be omitted, and prescribed the liquor arsenicalis, or Fowler's solution, which may be given even when inflammatory and congestive determinations exist in any of the viscera. It should not, however, be continued if it augment the general febrile state of the patient. In that case, it should be discontinued for a short time, and antiphlogistic measures adopted previous to its renewed employment. The dose given in this case is fifteen minims, and it may be continued, unless some symptoms occur to demonstrate its injurious accumulation in the habit.

None of the antiperiodics in general, however, I am willing to admit, are equal to the sulphate of quinia, administered in small doses at short intervals. It should not be given when the intermissions are imperfect; and I have already said that its use should be suspended until visceral affections are removed; but this observation does not refer to long-existing or chronic affections of the spleen or the liver. The patient might die of the ague before these were cured, did we delay its use until then; but where there is decided affection of an important internal organ, not of a very chronic character, we should suspend the use of the sulphate of quinia for a short time, and adopt other treatment*.

—o—

Errata in Professor Thomson's Clinical Lecture.—In page 162, *for* Dec. 18th, *read* Nov. 18th; *for* cone *read* comp.; *for* ℥ iij, in page 164, *read* ℥ xij; *for* disease, in the third line from the bottom of the second column in page 164, *read* disuse.

* The man has been discharged cured, since Professor Thomson delivered the accompanying remarks on ague.—Rep. *Med. and Sur. Journal.*

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE VII.

History of Male Obstetricians (continued).

The German obstetric authors of this period were Plenck, who reduced the precepts of Levret into an aphoristic form, and made many valuable additions*; and Stein, whose work was a compilation †. The names of Vogel,

* Elem. Art. Obst. 1753.

† L'Art d'Accoucher, &c. 1770.

Bose, Vater, Saeger, Goelicke, Langguth, Schuze, Shael, and Fischer must be mentioned, as the essays of these authors are often quoted, and were collected by Schlegel from 1785 to 1791.

Towards the close of the eighteenth century, the principal French obstetric writers were A. Petit, Astruc, Solayres, Baudelocque, Lebas, Simon, Lauverjait, A. Leroy, Contouly, and Lambin.

The most distinguished British obstetric authors were Smellie, C. White, Hulme, W. Hunter, Leake, Osborne, Exton, Pugh, Aitken, Douglas, Bland, Hamilton, Denman, &c.

Petit was a distinguished obstetrician, though he published very little on his favourite subject. His Memoir on the Mechanism of Labour*, and his celebrated essays in favour of protracted pregnancy, against Louis, raised his reputation†. His Lectures, with Burton's Treatise, translated by Lemoine, were published by Baigneux and Perrot, and added very little to science.

Astruc was ordered, in 1745, to prepare a course of obstetricy for midwives, which became a popular work‡. This was followed by Raulin's popular treatise, 1771, which was circulated, by order of the government, by the magistrates and clergy, with a view to diminish the mortality of parturient women and their offspring. From that date to the present, the law of France prohibits any person from attending women in labour, unless such person has attended obstetric lectures, or received instructions from some doctor in medicine and surgery.

Solayres of Montpellier was the first who attempted to reduce obstetric subjects to nosological arrangement. He divided labours into orders, genera, species, and varieties; and his definitions were concise and correct§. Defot, one of his pupils, published a Catechism for Midwives, which was an abridgment of his lectures and precepts‖. This work was followed by one in the form of question and answer, by Gilles de la Tourett¶.

The most celebrated French author of this period was Baudelocque. His classification, geometrical arrangement of positions, the almost mathematical precision of his operations, both in his Manual for Midwives** and his great work††, raised him to the highest eminence. His fame and works were, however, attacked by Sigault, Leroy, Piet, Herbinaux, and Millot, but ably defended by Fournier, who declared that the obstetric art had acquired the last degree of perfection, and that, after Baudelocque, it was useless to attempt to narrow its limits.

Lebas, who was engaged in the disputes concerning protracted pregnancy, in 1779, left a small and imperfect treatise, which also contained some objectionable points of practice—as the exhibition of emetics during labour‡‡.

Lauverjait published a small treatise on a new mode of performing the Cæsarian operation, which also contained many interesting facts§§. This contemporary was A. Leroy, whose work abounded with many palpable errors, and was severely censured by the critics of the time‖‖.

The next author was Contouly, who invented a pelvimeter, and modified

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* Maladies des Femmes et des Enfans Nouveau-nes. Paris, 1800.
† Receuil de Pieces relative aux Naissances tardives, 1766.
‡ L'Art d'Accoucher reduit à ses principes, &c. 1771.
§ Elem. Art. Obst. &c. 1765.
‖ Sur l'Art des Accouch. 1775.
¶ Art des Accouch. 1775.
** Art des Accouch. par demandes et par responses, 1787.
†† L'Art des Accouch. 1781.
‡‡ Art d'Accoucher, &c. Paris, 1779.
§§ Nouvelle Method. de pratiquer l'Operation Cæsarienne, &c. Paris, 1788.
‖‖ Hist. Nat. de la Grossesse, &c. 1787.

the forceps, perforator, and breast-bottle*. His essays appeared in successive numbers. There were numerous essayists who published in the French periodicals about the close of the last century, but whose contributions I omit in a history of the most celebrated monographic and systematic writers of that period.

The principal British obstetric authors were Exton, who agreed with Mauriceau that the blood coagulated by refrigeration, when the navel cord was prolapsed†; Pugh, who, in version by the feet, proposed a canula to facilitate the respiration of the fœtus‡; Tolver, who published a Memoir on the Mechanism of Labour, 1770; Charles White, Hulme, and John Clarke, in 1773, and Dr. William Hunter, in 1775. The work of the last writer, on the Anatomy of the Human Gravid Uterus, appeared in 1775, though some of the thirty-four plates it contains had been completed so early as 1751. In this work were first correctly delineated the retroversion of the uterus and the membrana decidua reflexa; for the discovery of which we are indebted to this author. His admirable essay on the Uncertainty of the Signs of Murder in the Case of Bastard Children, was published in the Medical Observations and Inquiries, in 1783, and did great service to the interests of science and humanity.

The work of Dr. Alexander Hamilton, of Edinburgh, was published in 1766, and rapidly passed through several editions§.

In 1772 Leake published his work on diseases of women, and also an essay against Denman, on the use of the forceps. Moore's Elements of Midwifery appeared in 1781; Perfect's Cases in Midwifery, 1787; and Spence's System of Midwifery the same year.

Denman published his Aphorisms in 1773, and his Introduction to the Practice of Midwifery, in 1757. Both these works have passed through several editions, and are still considered standard authorities. Denman was the first who practised the induction of premature delivery, in cases of pelvic deformity; and to him we are also indebted for the first authentic account of the mechanism of spontaneous evolution. He also published successive essays on natural parturition, difficult parturition, uterine hæmorrhage, and rupture of the uterus. His large work has been translated into most of the European languages, and is highly esteemed as a text-book and a book of reference in all countries. About this period the essays of Dease of Dublin||, and Osborne of London appeared.

The next writer was Aitken; who proposed bipubiotomy, and a modification of the forceps¶. He was succeeded by Douglas, who wrote on rupture of the uterus, in 1785, and Blunt, whose production was entitled Man-midwifery Dissected, 1793. Croft published an essay on returning the navel cord and placing it on the limbs**; while Sims and Foster were the authors of small works.

In 1794 Bland produced a work on human parturition compared with that of animals. About this period Dr. James Hamilton, the justly celebrated obstetric professor at Edinburgh, published his Outlines of Midwifery in 1799, which has passed through several editions.

The most distinguished Belgic writers towards the end of the eighteenth century were Herbiniaux, Kok, Solingen, Kluyskens, and Jacobs.

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* Mem. sur divers sujets d'Accouchemens, 1807.
† System of Midwifery. London, 1751.
‡ A Treatise on Midwifery, 1754.
§ Outlines on the Theory and Practice of Medicine, &c. 1766, 1783.
|| Observations on Midwifery. Dublin, 1783.
¶ Principles of Midwifery, 1784.
** Lond. Med. Journ. 1786, vol. vii.

Herbiniaux published a treatise on difficult labours, in which he described cases of deformed pelvis and uterine polypi*. Kolk wrote an instructive essay on hæmorrhage, and the tampon, 1796; Solingen described the relations between the pelvis and infantile head, 1799; Kluyskens added some valuable notes to his translation of Denman's work; and Jacobs was at the head of the practical school of obstetrics.

The eminent German writers of this period were Saxtorph, who published various essays from 1760 to 1802†; Stein, who was the author of a treatise‡; Baer, Stark, Zeller, Steidale, and Schlegel, who were essayists.

Italy and Switzerland had also their obstetric writers: Tranquillini §, Vespia‖, Tanaron¶, Nessi**, Nannoni††, Galleoti‡‡, Morandi§§, Malacarne‖‖, and Adrubali¶¶, who was the pupil of Leroy, and on his return to his native country established an obstetric school similar to that of Paris. His voluminous treatise is not so precise as those of France, but it abounds with practical information.

Roemer, of Zurich, followed the impulse of time, and published an essay on natural parturition, 1786.

Such were the most renowned obstetric authors at the end of the last century.

Nineteenth Century.—I shall now proceed to enumerate the most distinguished contemporaneous authors on obstetric medicine since 1800 to the present period, and shall content myself with inserting their names and the respective titles and dates of their works, without any comments.

The principal obstetric authors of this country during this period are, Dr. Hull, of Manchester***; Dr. John Clarke, of London†††; Dr. Burns, of Glasgow‡‡‡; Dr. Merriman, of London§§§; Dr. Douglas, of Dublin‖‖‖; Dr. Armstrong, of Sunderland, and late of London¶¶¶; Dr. Brenan, of Dublin****; the late Mr. Hey, of Leeds††††; Dr. Gordon, of Aberdeen‡‡‡‡; Sir Charles M. Clarke§§§§; Dr. Granville‖‖‖‖; Dr. Power¶¶¶¶; Dr. Hopkins*****; Dr. Conquest†††††; Dr. Ramsbotham, sen.‡‡‡‡‡; Dr. John

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* Sur divers Accouch. Laborieux, 1782.

† De doloribus parturientium, 1762. De ossibus pubis in partu sponte separat. 1765. De diverso partu, &c. 1771. Elemens des Accouch, à l'usage des Sages-femmes, 1783.

‡ Theoretische anleitung zur Geburtshülfe, 1770.

§ Compendio d'Arte Obstetr. 1700.

‖ Trattato della Arte Obstetr. 1760.

¶ L'Obstetr. ovvero l'Arte di racoglieri i parti, &c. 1768.

** Arte Obstet. Teorico pratica, 1779.

†† Trattato di Obstetr. Siena, 1786.

‡‡ L'Obstetr. pratica, 1787.

§§ Trattato Univ. di Parti, 1788.

‖‖ La explorat. propos. come fondam. dell'Arte Obstetr. &c. 1791.

¶¶ Element. di Obstetr. 1795.

*** Defence of the Cæsarian Operation, 1800. Essay on Phlegmasia Dolens, 1800.

††† On Pregnancy, Labour, and Puerperal Diseases, 1793, 1800.

‡‡‡ Principles of Midwifery, &c. 1809—1835. Popular Treatise on Diseases of Females, 1811.

§§§ Synopsis of the Various Kinds of Difficult Parturition, &c. 1810. Dissertation on Retroversion of the Womb and Extra-uterine Gestation, 1810.

‖‖‖‖ Explanation of the Real Process of the Spontaneous Evolution of the Fœtus, 1810.

¶¶¶¶ Facts and Observations on Puerperal Fever, 1814.

**** On the Use of Oil of Turpentine in Puerperal Fever, 1814.

†††† On Puerperal Fever, &c. 1815.

‡‡‡‡ On the Puerperal Fever of Aberdeen, 1816.

§§§§ On Diseases of Women, 1816.

‖‖‖‖‖ Obstetric Report of the Westminster General Dispensary, 1818.

¶¶¶¶¶ Treatise on Midwifery, 1819. Essays on Female Economy, 1819.

***** The Accoucheur's Vademecum, 1820.

††††† Outlines of Midwifery, 1821.

‡‡‡‡‡ Cases in Midwifery, vol. i, 1821; vol. ii, 1832.

Campbell, of Edinburgh*; Dr. Mackintosh, of the same city†; Mr. Barlow, of Blackburne‡; Dr. D. Davis§; and Dr. Marshall Hall‖.

At this period a brilliant æra commenced for the science and practice of obstetricy, by the publication of the valuable lectures of Dr. Blundell¶. These were remarkable for the elegance of style, profundity of judgment, and vastness of experience which appeared in every page; and they were universally esteemed by the cultivators of medicine. Obstetricy was not yet a branch of medical education in this kingdom; but its study was now required of students.

In 1827, Dr. Lyall published a work on the duration of pregnancy**, which was of great importance in a civil, medical, and legal point of view. The following year the first edition of my work appeared††. Three very valuable productions followed, one by Dr. Gooch‡‡, the other by Dr. Ashwell§§, and the third by Dr. Waller‖‖.

In 1830 Mr. Tate published his instructive work on Hysteria, and Dr. Jewel his Essay on Leucorrhœa; in 1831 Dr. Addison's work on the Disorders of Females connected with Uterine Irritation; and Mr. Holmes's popular Observations on Diseases incidental to Females, with an Appendix on the use of the author's obstetrical instruments.

In the succeeding year Mr. Ingleby published his instructive work on Uterine Hemorrhage, Dr. D. Davis his Obstetric Medicine, Skinner his Notes of Dr. Gooch's Lectures, Mr. Radford his Essays on the Placenta, on Version, on the Forceps, and Rupture of the Uterus¶¶.

In 1833 appeared the work of Dr. Lee, on the most important Diseases of Women; Dr. Maunsell's Dublin Practice of Midwifery; Dr. John Campbell's Treatise on Midwifery; Dr. Evory Kinedy's Obstetric Auscultation; and Dr. Montgomery's valuable essays in the Cyclopædia of Practical Medicine.

In 1834, Dr. Blundell's Principles of Obstetricy, edited by Dr. Castle, Dr. Granville on Abortion, and Dr. F. Ramsbotham's Lectures, were published.

The next work was Dr. Collins's Practical Treatise on Midwifery, 1835; and Dr. D. Davis's republication of his Obstetric Medicine and Operative Midwifery, in 1836, with my edition of Dr. Denman's Aphorisms, or Obstetrician's Vademecum; and Dr. Reid's Manual of Practical Midwifery.

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* Treatise on Puerperal Fever, 1822.
† Treatise on Puerperal Fever, 1822.
‡ Essays on Surgery and Midwifery, 1822.
¶ Lectures on Midwifery and Diseases of Women and Children. Lancet, 1827-28.
§ Elements of Operative Midwifery, 1825.
‖ Commentaries on the More Important Diseases of Females, 1827. On Intestinal Irritation, &c. 1825.
** Medical Evidence relative to the Duration of Human Pregnancy, as given in the Gardner Peerage Cause, in 1825-26.
†† Manual of Midwifery, 1828, 30, 31.
‡‡ Account of some of the most important Diseases peculiar to Women, 1829.
§§ A Treatise on Midwifery, 1829.
‖‖ Elements of Midwifery, 1829.
¶¶ London Medical and Surgical Journal, 1832.

ON THE IMPULSES AND SOUNDS OF THE HEART.

By William Elliott, M.D., Carlisle.

I beg to submit to you, with all deference to the opinions of many others engaged in considering the subject, the following statements respecting the impulses and sounds of the heart. The nature and exact causes of these curious phenomena have been much controverted of late, and the great variety of hypotheses brought forward in relation to them, often involving the most complete contradiction, both as to matters of speculation and fact, is not a little astonishing. It is by the following motives (and these I offer as my apology), that a "nameless wight," occupying a remote provincial station, has been induced to encroach on the columns of your esteemed journal:—1st. Between five and six years ago, when nearly completing my studies in Edinburgh, I found it in common with, I believe, every student of my acquaintance, a matter of almost total impossibility to come to a decision on the rhythm of the heart's actions. Physiologists of the highest station were then, as indeed they have since continued to be, engaged in propounding the most contradictory, and often unwarrantable views thereof. In preference to writing a "routine" inaugural essay, I devoted several months to the most unprejudiced and careful investigation of the intricate question, consulted all the authors to whom I had access, felt obliged to have recourse to a few experiments (which certainly cleared up many of the difficulties of myself and a few co-operating associates, in whatever light others may be disposed to view them), and, having finally arrived at a well-grounded conviction respecting what I conceived, and still do conceive, to be the nature, succession, and causes of the impulses and sounds, I committed the whole to writing, and constructed of it my probationary essay*.

2nd. Though the subject is not of great practical importance, and its introduction at any length into your practical numbers might to some appear injudicious, still, that it is devoid of all importance in practice is by no means to be allowed. Besides, the investigation and establishment of even barren physiological truth ought to lie within your province, if this were simply such, which, however, it is not. Again, I entertain a hope that a brief view of the whole subject, deduced from considering what appears to me to be a complete chain of evidence—a complete category of indubitable verities—exhibited in phenomena afforded both by the living animal in health and disease, and by others subjected to experiment, may prove useful to physiological students, who, harassed by various other perplexing inquiries, and experiencing frequent and distressing annoyances from their own palpitating hearts, can well afford to be relieved from the toilsome wanderings in the labyrinth of intricacies presented by the study of that organ outside their own breasts.

3rd. The reasons just given should not have sufficed to drag me forward, had not I lately observed that a distinguished professor*, and one whose wonderful powers of logical generalization in physiology, will, it is to be hoped, soon be universally acknowled as pre-eminent, condescended, without having any communication whatever with myself, to refer to my essay, when noticing the results of the Dublin Committee's Inquiry, the essential items of which I had possessed myself of five years previously, and had published.

4th. The subject is one of increasing interest; it now attracts a degree of attention which it was not possible to procure for it five years ago; and many writers have since then appeared, who, sometimes right, sometimes wrong, often stumble on conclusions previously arrived at by others, and conceive they are their first editors.

That I may not occupy too much of your valuable space, I shall abstain from giving any positive detail of the recent papers of Hope, Williams, and others, however excellent: they are already known to the profession. To give an idea, briefly, of the many difficulties a student has to encounter in mastering the subject, even with the best physiological works in his hands, I shall just observe, that by some the impulse of the heart nas been made simultaneous with the ventricular systole (which I shall prove to be correct), by others with its diastole; some attribute the sounds to the extension (it should rather be called the "becoming tense") of the tendinous and muscular fibres of the heart, and its valvular apparatuses; others to the mutual attrition of the particles of the contained and agitated blood: others, with whom I agree, hold that the chief cause "lies between," i. e. in the friction of the blood on the internal surfaces of the auricles, ventricles, valves, and arteries, modified, however, by the muscular thrill. The discussions on the second sound, that have occurred since Turner's exposition of Laennec's "auricular" error, are most interesting. I beg attention to my criticism thereon, and to my remarks on the functions of the valves, especially on the share the sigmoids have in modifying the second sound, which I believe, with Professor Ali-

* Of this I send you a copy, whereby you may verify the translations I shall presently give you.

* Professor Alison, of Edinburgh. See his Supplement to Outlines on Physiology. 1836.

son's concurrence, I was the first to "conjecture, if I can use no other term. In connection with this part of the subject, I beg to refer to Mr. Bryan's papers in the Lancet in 1832, and in the present year. My object, however, being rather to substantiate one series of views than to negative in detail those of others, I at once proceed to translate those portions of my thesis that bear on the points at issue*.

"It is thus that we describe the contraction and dilatation, or systole and diastole of the heart, which constantly succeeding each other, produce a certain succussion or impulse. This is felt outwardly in the region of the heart, viz. between the fifth and sixth ribs, and occurs almost in the same moment as the respective pulsations of the arteries. These last, however, just in proportion as we recede from the heart, manifestly succeed the impulses of that organ by a much longer interval—a fact attributable to the tensile and elastic structure of the arteries. Thus, although indeed, as Young calculated, the progress of the arterial shock or pulse from the heart equals sixteen feet per second, we perceive the inaccuracy of an assertion of Mr. Mayo's to the effect that the arterial pulse is simultaneous over the whole body. The pulsation of the systemic arteries is ascribed to the powerful and reiterated injection of blood into these tubes by the contractions of the left ventricle. Now, this distension or movement of the large arteries nearest the heart, and the impulse of the heart itself, are found almost to coincide; or rather, the interval that divides them is so extremely small, that it is scarcely possible for the most attentive observer to detect it. On this ground, then, and in complete opposition to the opinion of some writers, to be afterwards noticed, I hold this proposition to be incontrovertible, viz. that the impulse of the heart coincides with the systole of the left ventricle."—pp. 8, 9. (Next follows proof that the contraction of the two ventricles is simultaneous, as is also their dilatation: also, that these actions of the ventricles alternate with corresponding ones of the auricles, though not in the way commonly taught, but in a way I shall afterwards describe. Then, I allude to the state of muscular fibres when in full action, to the question whether when that spirally wound up web of fibres, of which the heart can be proved to consist, is in action, that is, "contracting," the heart itself is rendered longer or shorter). "'Dans le même instant,' says Magendie, 'ceux-ci le voyaient se raccourçir, et ceux-là le voyaient s'allonger.' It was, however, manifest to myself and several others, in repeated experiments on large rabbits (stunned, and made to live eight or ten minutes by artificial inflation of the lungs), that in the systole of the ventricles the heart is diminished in all its diameters. As Harvey remarks, Cap. II. the walls and substance of the ventricles are thickened and dilated (as solids) rather than those cavities themselves, by which condition the cavities are lessened and encroached upon, and the blood expelled thence into the arteries with considerable force. Probably all physiologists are agreed that the ventricles cannot, in contracting, expel all their contained blood, but still retain a small portion at the conclusion of each systole. Corrigan (London Med. Gaz. 1830) has lately maintained that the ventricles are completely emptied in each systole, and that at that instant one half of their parietes is closely and powerfully applied to the other. This indeed is evident enough on the flaccid heart of a dead subject, by suddenly emptying it of its fluid contents, by the play of a syringe, more especially if we experiment on the right ventricle, which was selected by Dr. Corrigan. But most assuredly while life endures, the ventricles observe a method of contracting entirely different from this, and close in upon their interior equally from every point."—(I next notice that, from the spiral arrangement of the external fibres, the heart, as is easily observable, rolls on its axis during the ventricular systole, and turns its apex over a little to the right. See Harvey, Cap. V. Bell's Anatomy, 1826, I. p. 547; A. Burn's Dis. of Heart, p. 104; Bertin's Introduction, p. xxxi, &c.) "From the continuous unity of those fibres which form the ventricles and columnæ carneæ, and inasmuch as the ventricles act simultaneously, we may conclude that the columnæ also coincide with them. Preferring, however, the surer basis of experiment to one of hypothesis, and with the able assistance of my friend Dr. Wm. Arbucle, I laid open the right ventricle in a rabbit, treated as before described, along the whole of its left boundary, then at the apex, and along the inferior part of its right margin, and thus at once brought the columnæ carneæ fully into view. Raising the apex of the heart, which was still connected with the large vessels, in order that the blood, still flowing from the auricle, should not obscure the internal surface of the ventricle, a sufficient interval preceded the final cessation of the rhythm to admit of an ac-

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* It is with reluctance and diffidence that I bring forward the inconsistencies and inaccuracies of talented men, *ex. gr.* the late Professor Turner, and Drs. Corrigan, Hart, Stokes, &c. &c. The remarks of Dr. Arnott on the circulation in the veins, I conceive to be at variance with his own physical propositions in other parts of his most instructive volume; but to that I may recur, with your permission, on some future occasion.

curate observation of two contractions of the columnæ. These we distinctly saw occur at precisely the same moment that the entire ventricles acted. To this I shall return, as it bears most importantly on the functions of the auriculo-ventricular valves." Some remarks follow on the elastic resiliency of muscles immediately following a powerful contraction, and remarkably observable in the heart, from the almost total absence of cellular tissue from amongst its fibres. Hence arises the rapid and powerful dilatation of the ventricles immediately following a powerful contraction, and remarkably observable in the heart, from the almost total absence of cellular tissue from amongst its fibres. Hence arises the rapid and powerful dilatation of the ventricles immediately following the cessation of the systole: a dilatation that of course cannot be muscular, as some would have it, unless we suppose the same fibres capable of acting a double part, or that there are two sets of them. "Most muscles, however, offer after their contraction a condition of simple relaxation. Such is, I conceive, the case with the auricles, which present thinner parietes, and a large proportion of cellular or inter-serous tissue. They will thus be rendered more susceptible of the action of causes as much external as existing within themselves, and will be made more easily to dilate and contract than the ventricles: in a word, they are more adapted for passive movements, though of course they also possess an inherent and active power of their own. Both ventricles and auricles appear to have three distinct causes of their various motions:—

"1. A certain distending power conveyed by the blood, continually entering them.

"2. A certain external agency requiring special notice." (I here allude to the influence exerted on the heart by the movements of the thoracic parietes tending to compress or dilate them; also the constant influence they, in common with all the interior of the chest, are subjected to of the lungs in a state of health leading constantly to collapse.)

"3. Their own inherent power of contracting, resulting from their peculiar irritability, or susceptibility to the agency of certain stimuli, as blood, air, warm water, &c.: which power is (*a*) direct, e. g. the muscular and vital contraction of the respective chambers, and (*b*) consecutive, or that relaxation of the cavity following its contraction, either as such simply, or modified by more or less resiliency according to the thickness of its parietes." Here follow remarks on Wedemeyer and Barry's experiments and hypotheses, which I may omit, as also the consideration of those influences which regulate the circulation of blood along the veins, with notices of and criticisms on the views entertained by Carson, Macfadyer, Barry, Mayo, Elliotson, Arnott, Magendie, and others. Poiseuilles' remarkable discoveries (see Edin. Med. and Sur. Journal, 1829) respecting the static or injecting force of the heart are afterwards (p. 36) noticed, as also his proofs "that the blood in all branches of the aorta has the same *momemtum* (not identical with *velocity*), which, however, Dr. Carson, as will be seen on referring to p. 51 of his book, appears to have been fully aware of."

We now proceed to p. 37:—"It has already been stated that there is a certain impulse of the heart which has been succeeded by the arterial pulsation. This last, consequently, is attributed to the systole of the left ventricle. Corrigan, Stokes, Hart, and others, appear to have entirely fallen into error when they deny that the heart's impulse is due to the contraction of the ventricles, on the ground that an interval occurs between that impulse and 'the pulse.' Such is, indeed, the case with the radial artery; but the interval lessens as we approach the heart, and increases as we recede: and thus, between some arteries themselves, as the posterior tibial at the inner ankle, and the temporal artery, there is an evident want of coincidence in the beat, while the large arteries near the heart beat almost quite synchronously with its impulse. Granting, however, that the heart's impulse and the ventricular systole coincide, it is not easy at once to explain how, while the heart is contracting, and in every diameter diminished, it can so impinge on the thoracic walls, as to cause that powerful impulse so well known to all." (Having explained the views of Senac, Hunter, and Mayo, and shown that this phenomenon is the result of the heart rolling forward and a little to the right upon its axis, as before mentioned, and that Corrigan's experiments—Lancet, Sept. 18, 1830—intended as proof of the impulse arising from dilatation of the ventricles, and not during their systole, being quite irrelevant, I proceed to the sounds, commencing with Laennec's descriptions thereof, which any one can refer to.) "As to the proximate causes of these sounds, although we learn, from Wollaston and others, that muscles, during their contraction, do give out a kind of sound or murmur, to which Laennec himself compared some of the heart's sounds, yet I rather incline to the opinion of Spittal and Pigeaux*, viz.—that the heart's sounds *chiefly*,

* See Spittal on Auscultation, and Pigeaux, Journal Hebdomadaire, April 1830. Bertin, however, in treating of the heart's diseases, p. 226:—"Le sang, étant obligé de passer de la cavité des oreillettes où des ventricles à travers une ouverture très étroite, doit éprouver un frottement plus ou moins considerable; et c'est ce frottement qui produit le susurrus, le bruissement, dont nous avons parlé."

if not altogether, result from the friction of the agitated and propelled blood on the internal surfaces of the organ. For, according to all auscultators, 'the sound produced by the action of the heart is great in proportion as the walls of the ventricles *are thin*, and their impulse feeble.' Laennec's opinion that the auricular systole produced the second sound, was not assumed by him without some show of reason; yet the proofs of its utter inaccuracy are now generally admitted. Turner (Edin. Med. Chir. Trans., III., 205, &c.) was the first to direct the attention of the moderns to the observations of Harvey, Haller, and other more or less ancient authors respecting the rhythm of the heart's actions. In his fourth chapter, Harvey says, 'the motion of the auricles comes first, then follows that of the heart (meaning the ventricles): and the motion seems to begin in the auricles, and advance thence into the ventricles.' In the fifth chapter—'These two motions, viz., one of the auricles and another of the ventricles, happen in such a sequence, preserving, as it were, a harmony and rhythm, that both together seem but one single motion.' Now, this is quite correct: and hence Turner concludes that the second sound is neither simultaneous with the auricular systole, nor, as Barry gave out, with the ventricular diastole: 'for,' says Turner, Op. cit., p. 229, 'the dilatation of the ventricles is synchronous with the contraction of the auricles (!) and I have endeavoured to show that this last does not coincide with the second sound, or succussion produced by the motion of the heart.' This writer (Turner) then brings forward his own hypothesis respecting the cause of the second sound, attributing it partly to the relaxed heart falling or settling suddenly down into the pericardium during its diastole (!) and partly to the circumstance of the ventricles themselves, when, rebounding with elastic resiliency after their systole, they dilate, and, as it were, suck the blood from their auricles into their cavity. The first of these hypotheses never did, nor can it, admit of demonstration. Further attempts at its refutation are needless, when we consider, as Williams remarks, that the second sound, were it owing to any such cause, could not be, as we know it is, affected by diseased states of the valves, which, indeed, sometimes entirely change its nature; and, also, that this same second sound has been distinctly heard in a case reported by Dr. Spittal, wherein, after death, the pericardium was found entirely adherent. As to Turner's second hypothesis (viz., of the elastically dilating ventricle drawing the blood into its interior), although it happens to be true, and, as such, adopted by myself, yet, for the sake of consistency, let me ask how it ever came to be brought forward by those very writers (Turner, Hope, Spittal, and others) who, nevertheless, lay down the following incorrect proposition, viz., that the ventricular diastole, and the auricular systole, occur simultaneously, and, strange as it may appear, deny too that the auricular systole does coincide with the second sound? Let us review what Turner himself indites at page 212, Op. cit.:—'According to the observations of preceding physiologists, the contraction of the auricle is the first of the two consecutive contractions; that of the ventricle follows it immediately; and the diastole of the heart takes place between the termination of the contraction of the ventricles, and the commencement of that of the auricles.' This, now, is what we actually behold on experimenting; not by any means what the same Turner sets forth at p. 229, as I have quoted above, but in an order I shall now sketch. First, suppose the ventricles to have just concluded their systole: they then suddenly rebound—by degrees enlarge more and more—and evidently receive into their cavity a quantity of blood. Their diastole is now seen to be completed or perfected by the sudden auricular systole; *immediately* after which, we again behold the ventricular contraction. Even the old writer, Lancisi, expresses himself thus, and most correctly:—'Principium systoles auricularum synchronum est cum fine diastoles ventriculorum.'

"Williams, Corrigan, Hart, and Stokes, have brought forward theories which I shall not, because I need not, treat of in detail. The first, be it observed, denies that the ventricular diastole is effected with any accompanying elastic rebounding, and he attributes the second sound to the auriculo-ventricular valves being vehemently drawn down into the ventricles during their diastole. But it is by no means clear, 1st. Either that ever so powerful a contraction of these columns, or ever so vehement a retraction of the valves, could give out such a sound; and 2ndly, That the columnæ carneæ actually contract at that instant of the rhythm that Williams asserts. Respecting the actual time of their contracting I have already written. They seem to me to be neither adapted to effect the complete opening nor the complete closure of the auriculo-ventricular valves. I rather feel disposed to believe that during the contraction of the ventricle they also act, and in such a way as to bring the valves into a state of partial approximation, their mutual contact only becoming complete by the pressure they suffer from the blood forced against their ventricular surfaces by the powerful contraction of these chambers: the blood so forced having no other exit than by the arterial apertures. Moreover, were it not the office of these columnæ to draw the valves into a state of approximation, during the ventricular systole, it ap-

pears to me likely that (were the columnæ and valves passive during the ventricular systole), that large portion of each of the valves lying respectively near the origin of the aorta and pulmonary artery, would be quite as much at liberty to close the arterial as the auricular apertures. Nor can I assent to Dr. Williams' position—that these columnæ must be extended or lengthened during the systole, since that systole causes the apex to approach slightly towards the base of the heart. Corrigan, to whom credit is due for pointing out the interval occuring between the heart's impulse and the pulsations of the distant arteries, attributes the second sound to the systole of the ventricles! But it is to be observed, in reply to this view, that the pulsation of any of the very large arteries can be plainly felt to precede the second sound. Stokes and Hart, who reason somewhat similarly with him (Ed. Med. and S. Journal, October 1830), insist that the impulse and first sound arise from the ventricular diastole, and yet they allow that the farther we retire from the heart in examining the arterial pulse, the more distant is that pulse from the heart's impulse that precedes it. These physiologists thus write on one page: 'The impulse of the heart is produced, not during the systole, but during the diastole of the ventricles.' On another, 'The interval between the impulse of the heart, and that of the arteria innominata is often so slight as to be scarcely perceptible: the pulse of the carotid presents a longer interval, and so on with the rest.' But, surely, they never meant to assert that the arterial pulse results from the diastole of the ventricles?—p. 49. Laennec and others have laid down that no interval occurs between the first and second sounds: time enough, however, does elapse to enable us to ascertain that the pulsation of arteries at a certain distance e. g. the temporal—actually occurs between the two sounds. This Corrigan himself allows, and overleaps the difficulty thus opposed to his view, by stating that the systole produces the arterial pulse at its very commencement: that this systole at its conclusion claps together the parietes of the ventricle vehemently and suddenly, so as to produce the abrupt and clear second sound. I endeavoured in a former part of this essay to show what attention this hypothesis is entitled to at the hands of physiologists. The following then appears to be the succession or order in which the heart's various motions occur: The auricular systole having momentarily preceded, after scarcely any interval—nay almost simultaneously—we observe the ventricular contraction, which is followed as above described by the arterial pulse. After a very short space of time, or rather while the gradually ventricular systole has not even quite ceased, the ventricles, and more especially the left, rebound with elastic force, receive a quantity of blood into their cavities, and towards the close of this their dilatation, are more perfectly distended by the sudden and almost momentary auricular systole, and are thus again excited to the performance of their own contraction. Thus we see that the auricular systole does not occur together with the commencement of the ventricular diastole, but towards its close, and probably gives out no distinct sound, or that is not concealed by the sound caused by the ventricles." (I here omit a few remarks on the probable direct flow of blood from the veins through the auricles, and into the ventricles during the powerful diastolic aspiration of the latter. "We must, from what has been advanced, conclude that the blood, agitated by the ventricles, and injected thence into the arteries, produces thus and then the first sound; and that the second results from the blood rushing from or through the auricles into the ventricles during the diastole of these last. The phenomena observed in cases of diseased valves serve strikingly to confirm this conclusion. The abrupt and sudden nature of the second sound I am disposed to attribute to the circumstance of the ventricular diastole commencing with such abrupt vehemence that the blood rushes with considerable force across the inner surface of the auricles, and that another portion, contained in the arterial trunks, and attempting under the same influence to return into the ventricles, receives an instantaneous check in its backward course from the sigmoid valves. It must be admitted that still more blood continues, after the occurrence of the second sound, to enter the ventricles; but this, as Hope remarks, cannot brush over the inner surface of the ventricles, which are then pretty well distended, but must mingle in silence with the blood already there; nor can the auricles at this stage be the seat or cause of any sound, inasmuch as they closely follow their contents. The proposition, that the motion of the blood resulting both from the ventricular systole and diastole, is the chief cause of both the sounds, is thus, I think, pretty clearly established; and it appears to be confirmed in a remarkable way by many of the recorded observations of Bertin, Williams, and Hope."—p. 54.

SKETCHES OF THE MEDICAL PROFESSION IN PARIS.

NO. III.—DUBOIS.

ANTOINE DUBOIS, Baron, was born at Gramat, near Cahors, on the 17th of July, 1756. After having passed through the degrees of Doctor in Medicine and Master in Surgery,

he was appointed Professor of Surgery to the College in 1790. When the Faculty of Medicine was organized, M. Dubois was chosen as one of the professors. He was one of the *savans* who formed part of the expedition to Egypt. In 1811 he attended the Empress Maria Louisa in her accouchement. He was, for a long while, Professor of Midwifery in the Hospice de la Maternité, and of Clinical Surgery in the Hospice de Perfectionnement.

The name of M. Dubois does not shine in libraries; for, whether from wisdom, or from a plan he has laid down for himself, he has written little or nothing. But there are few persons in France who have not heard that name pronounced as worthy of being held in the greatest estimation. It is not, therefore, in books we are to seek for facts in illustration of his celebrity. We must inquire of all those practitioners who, old like himself, have watched the career he has run with so much eclat. We must question, more particularly, the students who have heard him at the Hospice de Perfectionnement; and who equally regret his loss, and the successor who has been appointed to him.

In public life, where the extent of our knowledge of any man cannot be much depended on, we can at least discover in him a noble spirit, independence of character, and great frankness of heart. Such fine moral qualities well adorn his great talent; and this happy union gives to the exercise of the art of healing a dignified and venerable character. When ability exists alone, we pay for it well, it is true, because it is a rare and valuable thing: but when the practitioner, by an inconsistency of which we are not without examples, combines vice with his private character, with genius in his profession, he is but a workman who is dismissed when the day is done. We hasten to give him his hire, in order to get quit of him. Like the mysterious dwarf of Scott, necessity and the fear of death bring suppliants to his gate; but he is cursed even by those who implore his aid and reward him.

The Faculty of Medicine, the Hospices de Perfectionnement, et de la Maternité, and, lastly, private practice, these are the theatres in which the talent and knowledge of M. Dubois have shone forth in all their force. Endowed with an active mind, and a remarkably correct judgment; skilful in engaging confidence and attention; a surgeon of the first order; a physician, a little too sceptical perhaps; but, above all, a man of good sense, he has managed to obtain an ascendancy which he has never abused, over a whole medical generation, of which he is almost the oldest member. Thus, in spite of his advanced age, he is still consulted every day by young practitioners, who admire in him that medical tact so delicate and sure, that accuracy of diagnosis, and that candour, sometimes carried to the extreme, with which he often announces the impotence of art. Is it from habit that he considers medicine of no avail in so many cases, or is it a natural leaning to scepticism, which excites in the mind of a man so superior, such extreme distrust? Perhaps both these causes are concerned: thus much is certain, however, that it is one of the distinctive qualities of M. Dubois. This caution, it is said, extends likewise to surgical cases; but perhaps M. Dubois appears to doubt too much, only because others do not doubt enough.

It is from the effect of this tendency to scepticism that M. Dubois, without declaring openly against certain innovations, receives them only with certain restrictions, and with the proviso of a longer experience; thus committing to time the task of confirming new discoveries, and exciting in rising talent the emulation necessary to invent and to perfect. It is only when some method or practice appears to him evidently pernicious, either from its own nature, or the manner in which it is abused, that he strikes it boldly with all the weight of his reprobation, without the fear of wounding the self-esteem of some person or other. "I remember the time," said M. Dubois in one of his lectures, "when the application of the forceps was reduced to such a system, that certain accoucheurs made use of them at every turn. Females could no longer be delivered without the assistance of that instrument. At a later period it was the Cæsarian section. This was a more serious operation: but it remained in fashion for a pretty long while. Symphisotomy replaced the Cæsarian section, and had also numerous partisans. All this is gone by; and women now bring forth very well without the forceps, or the Cæsarian section, or symphisotomy. You will see that, some time hence, patients will dispense with leeches, and get well without them."

It is easy to understand how much good such a mind might do in an hospital consecrated to the instruction of students. Thus the clinic of that hospital became the rendezvous of all the young doctors, who came to the capital to seek a finishing touch to their education, and to familiarize themselves with the practice of the great masters. "This," observed M. Dubois, "is not a course for students who are commencing their studies; but for young physicians, who are about to practise for themselves, without guide, and without control." Hence there was nothing scholastic or magisterial in his manner. The subtilties of the books disappeared at the bed-side of the patients. Systems there found their condemnation, and medicine became more simple and rational. It was with the professor an affair of pure good sense. The young physician quitted the hospital, his

mind filled with things and not with words. He had seen, and, what is better, he had *learned* to see, what is necessary, and nothing but what is necessary to be known in the diagnosis and treatment of diseases. Such was, without doubt, the manner of the ancient masters, who, neither reading nor making books, taught medicine by tradition. M. Dubois had the advantage over them of being born some centuries later. His clinic has been justly cited as a model of this mode of teaching. Of what description is that of his successor, M. Bougon?

The Hospice de la Maternité has been for M. Dubois a storehouse of daily observations on the obstetric art, and a school where he has formed an immense number of *sages-femmes*, fully competent to rival many surgeons who call themselves *accoucheurs*. It is difficult to form an idea of the ignorance of that class of females, before the establishment of that useful institution. It can only be estimated by comparing the knowledge of those who have come out of that school, with that of those who have not been educated there. It is especially in the provinces distant from the capital that this difference is observable. The education of *sages-femmes* is one of those elements which should enter into the calculation of the causes which depress or favour population.

In the absence of positive information as to the ideas of M. Dubois as to the general principles of medicine, and fearing to misrepresent them, since they are not written, I will confine myself to saying a word on his obstetric opinions. It was in 1820 that he gave his last course on that branch of surgery at the Hospice de Perfectionnement; and what I have learned of it, confirms me positively in the idea I had formed of the observing spirit and exquisite good sense of this great practitioner.

Until the time of Baudelocque, the art of midwifery was a chaos, where the most valuable precepts were found intermixed with the most pernicious; where routine prevailed more than scientific endowments; where in fine each formed for himself according to his taste, and under the inspiration of common sense or caprice, ill-founded rules for practice. Baudelocque introduced order into this confusion. He established fixed rules, laid down regular precepts, and created a nomenclature which has been generally adopted. But as one man cannot do every thing, or every thing well, there was no want of commentators who, under pretext of correcting and improving, gradually obscured the most positive notions. As nothing is more easy than to change and vary nomenclatures, each made one to his own taste, always adding new details to those already too much multiplied, which Baudelocque himself had given. Thus it happened that what accoucheurs call the diameters of the pelvis, and the different positions of the fœtus, were multiplied to infinity by suppositions and hypotheses which are never realized in nature. M. Dubois has laid a violent hand on all these subtilties—divisions and subdivisions without end, very well calculated to embarrass an art sufficiently simple in itself, and almost entirely mechanical. The divisions adopted by him are clear and simple. What is necessary, and nothing else,—this is always the method of M. Dubois. He enlarges the art by cutting off what is superfluous; he perfects by simplifying. Instead of losing himself in minute descriptions, he busies himself only with practical details, in order to give his advice on disputed points, or discountenance improper methods. It will be remembered that he addresses himself to pupils already instructed, who only want to have their doubts cleared up. That which is positive is given by the professor as positive; that which is uncertain is given as uncertain; and that which is purely hypothetical has no other value with him than that of a hypothesis. The only theory in which M. Dubois indulges in all his course, is certainly very ingenious. He supposes that labour begins the very day of conception. According to him there is established from that time a contest between the fibres of the neck of the womb and those of its body, a contest which lasts for nine months, and in which the fibres of the neck have the advantage during the whole time of pregnancy, but in which the fibres of the body eventually triumph; their contraction at last, in the moment of delivery, surmounting the resistance of their antagonists. This hypothesis furnished the professor with the means of explaining certain phenomena which take place during pregnancy; but he attached so little importance to the theory, that in giving these explanations he added: "I explain this fact to you in this manner, because I am prejudiced in favour of the idea." It will be seen that a man who speaks thus of his theories, ought not to have much to do with them.

M. Dubois is worthy to be mentioned as one of our best surgeons. He has carried into all departments of the art the sagacity and correct judgment which distinguish him. He was the first to propose the ligature of the primitive carotid, in the case of aneurism, and was on the point of practising that operation on a patient who was suddenly carried off by an attack of apoplexy. An expert lithotomist, he has proposed a new mode of operating on females, having great advantages over the methods generally employed. He has often performed the transverse operation for stone, upon children, according to the method of Celsus. It consists in cutting down in the perineum on the stone, previously fixed in the anterior portion of that space by the

finger introduced into the rectum. He has made several very important modifications in the forceps; and invented or improved various other surgical operations.

I have but little to add to this article. Others no doubt could have spoken of M. Dubois more appropriately than I, because they are better acquainted with the extent of his knowledge, and the services he has rendered to science and humanity; but no one can entertain a more sincere or profound admiration for that excellent man, whose mind is so well tempered and superior. Persecuted by worthless men, there remains to him at present only the glory he has acquired, and the esteem of good men; and therefore I love to recall him to the students of the school of Paris, who have not lost all hope of seeing him return to his former official station. Although years begin to weigh heavily upon him, he preserves a vigour of mind and warmth of spirit which he could consecrate, I am sure, to the professorship. For what reason has it been struck with destitution? For the purpose of placing M. Pierre Bougon in his place.

NO. IV.—M. RICHERAND.

Anthelme Richerand, born at Belley, on the 4th of February, 1779, came to Paris in 1796, for the purpose of studying medicine. In 1799, he went through the public exercise then required for admission to practise the art of healing. In 1800, M. Richerand was appointed one of the surgeons in chief to the Hospital of St. Louis. He also became surgeon to the National Guard of Paris, and to the Departmental Guard. The choice of the School of Medicine called him, in 1807, to the chair of Professor of Pathology, vacant by the death of Lassus. Created in 1814 a member of the Legion of Honour, he obtained letters of nobility, and took the title of Chevalier. M. Richerand is now Professor of the Operations of Surgery to the Faculty of Medicine at Paris; Surgeon in Chief to the Hospital of St. Louis; Member of the Academy of Medicine, and of several other learned Societies; and member of various foreign orders.

It is now nearly thirty years since M. Richerand began to make a noise in France. Much may be done in thirty years, especially in the sciences, where time well employed is an indispensable auxiliary to genius. This celebrated physician (not *illustrious*, as has been said, undoubtedly by mistake), has had all the *eclat*, and given rise to all the misconceptions of precocious talents: they promise much, and realize little. Not that he has abandoned a career so well commenced by the prodigious success of the New Elements of Physiology; for from that time he has not ceased, either by new works, or new editions of the old, to attract the attention of the most benevolent, but, at the same time, perhaps the most oblivious public of Europe." It cannot be affirmed decidedly that his efforts have failed; but it is true, nevertheless, that this physician finds himself in the possession of a reputation very different from that which he has appeared to seek: the author of the Elements of Physiology, of Surgical Nosography; of the History of the Recent Progress of Surgery, &c.—works which undoubtedly are very well known, and of which the numerous editions attest the sale; the author, I say, of these scientific treatises, is never cited as a physiologist or as a surgeon. The fact may appear incredible, but it is certain. M. Richerand is one of those men whose name is never pronounced but with one of those admiring exclamations, which are very harmonious to the ear, but which are so vague and general, that they appear to be only the echo of popular applause, and are of no greater importance; indeed very few could give a good reason for them. Ask a practitioner his opinion on the surgical writings of M. Richerand, and he will tell you he has written very well. Ask any one you please, as to his ability in operating, and there will be no answer. Question a scholar or a lady, about his Physiology, the former will reply that the style is agreeable, the latter, that the book has very much amused her. As to the History of Surgery, the opinions are a little more precise: here the matter has prevailed over the form: the historian has touched so many reputations, cited so many facts, and pronounced so many names, that the scientific question is swallowed up in the contest of personal interests, wounded by a critique in every page. He is accused by the most moderate of exaggeration and incorrectness, and by the more discontented with malevolence, injustice, and partiality.

From the preceding observations it will be seen that public opinion, without refusing to M. Richerand the talents and knowledge of the practitioner, does not give him credit for very great talents, except those of a literary man, and for the ability of a writer. This eulogy cannot of itself be displeasing; but the sort of qualification or exclusion it implies is awkward. It may be feared that M. Richerand cannot be completely satisfied with it. A physician, that is to say a member of a body essentially scientific; surgeon to a vast hospital, a post which does not always prove ability, but which at least supposes it; in possession of one of the chairs which formerly were gained, and now are given; he ought to be able, and should be willing, to give proof of extended knowledge, calculated to extend the bounds of the art. He ought to seek the approbation of men of science, more than of men of letters; and to say, therefore, that he has obtained only the latter, would be rather a censure than a eulogy, M. Richerand finds himself, in this

respect, pretty nearly in the situation of M. Alibert. The physician and the surgeon of St. Louis, might furnish matter for a parallel. Like M. Alibert, M. Richerand writes a great deal, and passes equally for an incomparable author. Like him he aims at high scientific renown. Like him he has admirers who are too zealous. Pushing this parallel to the utmost, ought we to pass on the latter physician the judgment we have passed on the former? The examination of his principal works will decide the question. Let us observe only at present by anticipation, and to the advantage of M. Richerand, that he writes less and better; that his knowledge, though less universally admired, is much more appreciable; that it can be proved he has rendered some service to his profession; and that in fine, if his reputation is less extended than that of his colleague, it is assuredly established on a more solid foundation.

It was in 1801 that the first edition of the New Elements of Physiology appeared. The ninth and last was published in 1825. Few books, especially in the sciences, have been equally fortunate. Here is a real, well attested success. The cause must be sought in the merit and usefulness of the book itself, and no where else. No other cause but this would account for so long a life. At the time of their first publication, the Elements of Physiology were really new in every respect. Scarcely had we emerged from our political storms, when he effected a kind of resurrection for science and letters. For a long time nothing had been printed but the bulletins of our victories. Men of talent rejoiced at the arrival of peace, and turned willingly to pacific and serious studies. The public, then, was well disposed. The state of science was not less favourable. Physiology was born at the school of Paris. The lectures of M. Chaussier diffused a taste for it, and demonstrated its importance. The labours of Haller had already given it an experimental character, which gave an ultimate promise, no longer of simple ingenious dreams, but of positive facts and practical results. Bichat had published his Researches on Life and Death, and his Treatise on Membranes; works of a vast and brilliant genius. His writings, so original and so rich in ideas, astonished and seduced at the same time. In short, it was the moment in which Pinel, introducing philosophy into medicine, prepared a brilliant prospect for the art of healing.

In these circumstances M. Richerand's book appeared. It was received with avidity; for it was demanded by the wants of science. In the whole of physiology there did not then exist any treatise valued by the students. The facts collected by the recent labours of French and foreign experimenters were sufficiently numerous to be united and arranged into a system. M. Richerand undertook it, and performed it well. All that his book contained, both facts and theory, had been said before; but they were dispersed in a number of separate memoirs, or in works not easy to be consulted. Beginners could not go to these sources in search of knowledge. M. Richerand rendered them the service of presenting every fact in luminous order, with an admirable clearness in the details, and in language harmonious, easy, and elegant. The work was altogether elementary. It is even a model of its kind; no wearisome digressions; no show of science and erudition; there is everywhere a simple and rapid exposition of the best attested facts. Some critics have changed these qualities into faults. They have found the work superficial, incomplete, and insufficient. They have committed the great error of not paying proper attention to the fact, that M. Richerand prepared his treatise only for students, total strangers as yet to a science, of which they scarcely knew the name. It was necessary, therefore, to proportion his instructions to their strength, and not to alarm them by too many difficulties. This is the reason (at least as it appears to us) why he is content to sketch the natural history of the functions, without seeking to describe them thoroughly; and hence he has not recorded in his book the results of his own researches, or any of his own peculiar doctrines, not wishing to afford matter for controversy, in a purely didactic treatise.

The work, examined under this point of view, is freed from the censure which has been so often uttered against it, of being only a compilation, and a mutilated one. If M. Richerand has borrowed his principal divisions from Bichat and Grimand, and most of his details from Haller, Borden, Barthez, Chaussier, and others, we ought to praise instead of blaming him for it. Could he have had recourse to better sources? Besides, since his borrowings are so numerous and so incontestable, can it be denied that they are accomplished scientifically, and by calculation? And if he has never named either the living or the dead, is it not because their ideas being so recognizable in his book that no one could mistake them, the precaution was unnecessary? This is a reflection which M. Chaussier ought to have made, instead of getting so unreasonably out of humour.

It seems, then, evident to us, that M. Richerand cannot pretend to the title of a great physiologist. He only wished to make a book useful to students; and he has succeeded. If, nevertheless, his hopes had risen higher, he would have deceived himself; for his book never was, nor yet is, anything more than an elementary manual. At the time of its appearance it was excellent; at the present day it requires to

be done over again. It is the author himself who ought to undertake this recomposition. No physician in France better understands the art of developing, and describing, and explaining. There is not a phenomenon, however complicated in the great wheel-work of our organism, which M. Richerand does not describe with so much clearness, that the mind conceives at once a distinct idea of it. This is the chief and incontestable merit of the Elements of Physiology. It is this which has secured for them a success so permanent. This one merit maintains a contest, even at the present day, against the age of the work. It is in vain that the title, after twenty-five years, and nine editions, announces the book as *New*; it is superannuated in almost all its parts. M. Richerand depends too much on the charm of his style. In order to raise the work "to the level of the science," as the phrase runs, it is not sufficient to add a few notes, and to efface a few lines. The author should reconstruct it on a more extended plan. He ought to add to it what it is deficient in—a little more science: and to cut off what it has too much of—errors of old standing, and facts which are trite and common-place. Without this precaution, M. Richerand will not be long in seeing his work replaced by another more adapted to the present state of our knowledge; and it is wonderful that no one has thought of it already. We have, in France, only three other treatises on physiology. Although subsequent to the New Elements, and very superior in respect to science, they are scarcely read, and have not robbed M. Richerand of his popularity. That of Dumas, surcharged with erudition and metaphysics, does not suit students; and the physicians of the Paris school despise too much the reasoning and speculative philosophy of Montpellier, to resolve to seek there the profound and excellent things which it contains. That of M. Adelon, also very rich in matter, is badly written, is destitute of critical remarks, and much too long. The third is that of M. Magendie. The personal opinions of the author occupy too much space in it; and, far from being a manual of what is well known in physiology, it is only an exposition of experiments and new ideas, very fine, very ingenious, but as yet too much contested. It is a book written exclusively for philosophers. It supposes in its readers the possession of a very great amount of knowledge. The contents give the lie to the title. It is this absence of an elementary work that has hitherto preserved the New Elements from oblivion. The Societé des Bonnes Lettres has felt impelled to propose a prize for the preparation of a work of that kind. We hope its zeal will not be lost, but we doubt it; for we have seldom seen any very valuable products from these tricks played by learned Societies. There are three reasons for this—the meagreness of the recompense; the chances of what is truly a lottery; and the distrust, well-founded or not, of the judgment of the Midas.

Two years had scarcely elapsed from the publication of the New Elements, when, in 1803, M. Richerand gave to the public his Surgical Nosography. The editions of this work, like those of the first, have been very numerous. It recommends itself to the public esteem by the same kind of merit, and is chargeable with the same faults. Beginners may learn something from it; practitioners scarcely anything. They have generally praised the divisions, the clearness of the exposition, and the management of the subject; and these praises are well deserved; for M. Richerand well understands the art of making a book. He has the true talent of an artist. Give him the ideas, and he will dispose them to advantage. Furnish him with the materials, and he will make them into a book better than any one else. In his Nosography there are few things of his own. The substance is borrowed from the best practitioners, and especially from the ancient Academy of Surgery. I do not wish to push this objection too far, for plagiarisms of this kind are inevitable in the sciences. The facts belong to all the world; and when once an operation is sanctioned by usage, or a therapeutic proceeding is adopted, any one is permitted to describe and employ them. If we cannot exactly require that an author should give us nothing but what is new, and should create a science for himself; it is nevertheless desirable that, rich in his own researches, he should add something to the labours of his predecessors, and should not content himself with only being a good arranger. The objection, thus modified, may be urged against M. Richerand, with so much the greater justice, that he has been for more than twenty years Professor of Surgery at the School of Paris, and chief of a vast establishment. His favourable position has made the public expect more from him than from another; and it is unfortunate that he has not been able to satisfy them better. This is the reason why his works, although read and read again by everybody, and enjoying an incontestable reputation for usefulness, have not acquired for him a solid scientific reputation.

Another fault, more serious in my opinion, is, that M. Richerand is idle and superficial. He speaks willingly of everything, but not profoundly. He is not sufficiently anxious to keep up with the current of science. Thus, the editions of his books, and in particular of the Nosography, are only reimpressions, without any alterations of importance. He is not sufficiently aware, that books do not long remain new. Many things received as true at one time are quickly classed among errors at another;

and an author who reprints himself, ought not to persist in repeating to his contemporaries of to-day what he said to his contemporaries of a former period. I know it is difficult to forget what we have learned with so much trouble; painful to avow that we have been deceived; more painful still to join in the controversies of the schools, and to study unceasingly; but it is the inevitable lot of all who occupy themselves with science. There is no possible repose for the physician, nor for the surgeon; especially when they wish to write properly of their profession. These reflections are directly applicable to the Nosography of M. Richerand. The last editions are too much like the first. The state of knowledge is there represented in a very incomplete manner. Among the operative proceedings which are described in it, several are now abandoned; others have sustained important modifications; but of all that, no account is taken by the author, although Secretary to the Section of Surgery, and in spite of some pretensions to erudition. The last edition differs from the preceding only in form. The author has made of it a treatise on Operative Medicine; and his book has thus become the ground-work of a course of lectures which he delivers to the faculty, in quality of Professor of Operations and Bandaging. All these defects and many others, which I omit to particularize, have been generally perceived by the critics, and are incurable.

To what, then, is the success of this work to be attributed? I have already said that it is owing to the clearness of its divisions, the arrangement of its contents, and the beauty of its style. The operations of surgery are described in it with great talent. However numerous and complicated may be the proceedings of an operation, whatever difficulty the anatomical descriptions may offer, M. Richerand goes through them with the greatest ability. We *see* what he describes; which is a very great merit. He has added to the work some plates, which are of very little use, and which do not enlighten the text. I prefer his descriptions to his designs.

GUY'S HOSPITAL REPORTS.

The following report by Dr. Ashwell, of hard tumours of the uterus, treated with iodine, is worthy of reflection and replete with interest. The experienced narrator gives the histories of seven cases, and then offers clinical remarks upon their pathology and treatment. We deem this report so valuable and instructive, that we quote it in full from Guy's Hospital Reports; and we feel convinced that it will be perused with interest and instruction by many of our readers:—

Cases of Hard Tumours of the Uterus, illustrating the efficacy of the Treatment by Iodine.

Case 1.—Mrs. ——, aged 45, was admitted into Mary's Ward, Guy's Hospital, January 23, 1834.

She has been married eleven years, without children; is still menstruating; and has invariably enjoyed good health, with the exception of occasional hysteria.

Six or seven months ago, she first perceived a small, hard tumour, about the size of an orange, situated low down in the hypogastric region: it produced neither pain nor inconvenience, and has therefore been entirely disregarded.

Examination.—The tumour is nearly as large as the adult head, reaching some way above the umbilicus, and occupying the central part of the pelvic and abdominal cavities. It is lobulated, but very firm; and, by its pressure, prevents the easy evacuation of the fæces and urine. The os uteri is patulous, hard, and puckered; the cervix is tender, and excessively indurated: pressure by the finger on these parts produces pain.

The whole uterus is low down in the vagina. This canal is hot; painful on touch at its upper part; and there is constantly escaping from it a discharge of white, opaque, purulent-looking matter.

Applicentur Cucurbitulæ cruentæ tumor, bis, et detrahantur sanguinis, ℥ x.

Applicetur Ung. Iodin. cervici uteri, etiam tumori abdominis, more solito.—Sumat. Julep. Iodin. ℥ i. ter die.

Feb. 10. She is improved in health. The iodine makes her giddy.

March 4. She leaves the hospital to-day, materially improved: and is to be an out-patient. She is much more robust in her general health than when she commenced the use of the iodine.

March 22. To-day, I have carefully examined her, at my own house. The catamenia appeared, as usual, last week. The tumour, externally, is greatly diminished; not reaching the umbilicus, by at least an inch: it is also much softer, and its lobulated feel is more distinct and positive. She says, too, that her sensations are greatly improved, having lost the feeling of pressure and distension; and she attributes a good deal of the improvement to the recumbent position she has now maintained for two months.

It is, however, internally that the greatest improvement has taken place: the os is less patulous; its edges less puckered and irregular; and its induration is so far diminished, as to lead to the hope that, by attentively pursuing the treatment, it may be altogether removed.

April 17. The tumour is getting less, and

it is now very moveable: it has diminished so much, as scarcely to exceed the size of a very large orange: internally, the puckering of the os, and the excessive induration of the cervix, are quite removed; and I should, if examining them for the first time, consider them nearly, if not quite, healthy. The iodine does not emaciate, nor nauseate.

Case 2.—Elizabeth ——, aged 49, a woman of ordinary stature, with dark hair and eyes. She is married; is the mother of six children; and has had two miscarriages. She began to menstruate at 13 years of age. Amenorrhœa was induced from wet feet, after the third period, and this condition existed for the space of five years. During this interval, she endured the most aggravated sufferings: she appears to have passed through the successive stages of the simple, severe, and confirmed chlorosis: and when in this latter stage, her friends aptly compared her to a "walking ghost." This affection gave rise to, and became complicated with insanity. She remained in an insensible state for three weeks; which was preceded by severe headach, and other symptoms of cerebral excitement. This was relieved by a discharge from the ears and nose, of a yellow colour, and very fetid. From this chlorotic condition she was released by the re-establishment of the catamenia. From this time, till within the last twelve months, she has regularly observed the accustomed periods. Her age indicates that the catamenia are about to cease; and the history of her symptoms, during the last year, confirms this opinion. The menses have been very irregular, both in quantity, quality, and time of recurrence. A profuse leucorrhœa alternates with the catamenial flow.

On admission, she complained of lumbar pain, central pains in the lower abdomen, of a pricking and shooting character, which have existed during the last three or four months. An offensive muco-sanguineous discharge (being the catamenia mixed with leucorrhœa) flows from the vagina: the constitutional symptoms are slight.

On Examination.—The mucous lining of the upper part of the vagina is relaxed and hot; and above this a hard body is felt, occupying the superior part of the cervix and the lower portion of the posterior paries of the uterus. The os is hardened and fissured.

After a short preliminary constitutional treatment, and the maintenance of the recumbent position, she was ordered—

Julepum Iodinæ, ter die.
Unguenti Iodinæ, instar nucis Moschatæ massâ, tumori diligenter nocte maneque infricanda.

This course was adopted on the 2nd of June; and at the commencement of August, all appearance of the tumour, and the unhealthy condition of the os, had disappeared; and she left the hospital cured.

Case 3.—Jane ——, aged 25, was admitted into Mary's Ward, September 5, 1835. She is the mother of two children, the last of whom was born three months since. Her labours have been undeviatingly easy, and her general health uniformly good. Since her last confinement, the abdomen has been considerably distended; and occasions great suffering, when pressed. This enlargement is the result of an accumulation of flatus. In addition to this tympanitic condition, which is associated with impaired appetite, occasional nausea, and constipated bowels, she complains of a sense of weight and bearing-down in the lower abdomen, which is aggravated by the erect posture or progression.

After an examination, Dr. Ashwell reported:

"I find a tumour of scirrhous hardness situated low down, on the posterior part of the cervix of the uterus, but not implicating the lip. This growth presses on the rectum, and thus accounts for the constipation."

After the use of an assafœtida injection, with the internal administration of tonics, to diminish the size of the abdomen and improve the constitutional power, she was ordered to take the julepum iodinæ three times a day, with the topical application of the unguentum iodinæ. A small portion of the ointment, about the size of a nutmeg, was to be passed up the vagina by the nurse, and rubbed over the tumour. She continued pursuing this plan, with occasional intermissions, till October the 24th; when, on an examination instituted by Dr. Ashwell, it was found that "no vestige of the tumour was present, and that the os and cervix were perfectly healthy." During this interval, her symptoms were those arising from the mechanical action of the tumour, which gradually subsided with its resolution.

Case 4. *Hard Tumour of the Uterus, treated with Iodine.*—Sarah ——, aged 32, a woman of middling stature, fair and delicate complexion, with light brown hair, was admitted into Mary's Ward, on the 24th of January, 1835.

She is a married woman, and is the mother of two children, the youngest of whom is thirteen months old: her health has been uniformly good. Some short time previous to her marriage, which took place five years ago, and subsequent to that period, she has been habituated to a leucorrhœal discharge. The catamenia, too, from the same period, have been profuse in quantity, frequent in their recurrence, and long in their duration; usually appearing every three weeks, and occupying eight days in their flow. This excess of secretion continued for the space of two years, before its effects were visible on the general health. After the expiration of this time, however, she began to

complain of lassitude, inertness, langour, lumbar pains, &c., which have continued to the present time. Her last confinement, thirteen months since, was followed by the establishment of an excessive red discharge, apparently a passive hæmorrhage, which reduced her constitutional powers, and engendered debility, with loss of flesh.

A slight increase at the lower part of the abdomen, with three months' suppression of the catamenia, had induced the belief that she was pregnant. This supposition, too, was confirmed by her experiencing sensations analagous to those she had noticed in her previous periods of gestation. She was dispossessed of the idea, however, by the appearance of the catamenia a fortnight ago; on the accession of which, the abdomen resumed its natural size, and the mammæ, which had become tense and rounded, shrank into a flaccid condition. The leucorrhœal secretion has relaxed the vagina.

Jan. 26. After an examination, Dr. Ashwell made the following report:—

"The uterus is enlarged generally; its lips and cervix are swollen and soft; and there is a considerable quantity of leucorrhœal secretion bathing the parts posteriorly. Just above, and encroaching on the cervix, at the posterior part of the uterus, is a tumour, about the size of a hen's egg, scarcely hard enough for scirrhus."—Ordered

Iodinæ puræ, gr. xij. Potassæ Hydriod. ℥ij. Adip. ℥jss. fiat unguentum—infricetur massâ instar nucis Moschatæ super tumorem nocte maneque.

Julep. Iodin. c Vin. Ferri, ℥i. ter die sumend.

The tumour, by pressing on the rectum, is the occasion of constipation; and prolapse of the gut ensues in the attempt to evacuate the fæces. She complains of a dragging sensation at the loins, with pain at the lower part of the abdomen; but it is not severer than what usually co-exists with the performance of the menstrual function.

She continued to pursue this plan of treatment for six weeks, omitting the application of the iodine during the catamenial flow. On an examination being instituted after the expiration of this time, the tumour on the posterior paries of the uterus had disappeared. The use of the iodine was unattended with any deleterious effects. She had assumed a more healthy and robust, rather than an emaciated appearance; and, during its exhibition, she did not complain of headach or undue cerebral excitement.

Case 5.—Mary ——, aged 28, was admitted into Guy's Hospital, March 21, 1833.

The patient first perceived an enlargement in the right hypogastric region about three years since. As it did not produce inconvenience or pain, and was unattended with any symptom which alarmed her, she failed to apply for medical advice. During the last twelve or eighteen months she has suffered so severely from lancinating pains in and about the uterus, attended by strangury and tenesmus, that her health is greatly impaired. She states that the tumour has trebled its size within the last three months; it requires a considerable effort to walk. Her stomach is highly irritable; digestion is imperfectly performed; and she has gradually lost flesh. Pulse 110, rather hard; skin hot at night; sleep much disturbed. The catamenia have been regular in their recurrence, though their flow has been accompanied with considerable pain.

On examination, Dr. Ashwell reports:—

"I find the uterus nearly of the size of the adult head, and placed on the right side of the mesian line, occasioning a visible protrusion of the abdominal parietes; it is very hard and unyielding. On the left side there is a hard tumour, projecting posteriorly, and pressing on the sigmoid flexure, giving rise to the pain complained of in that region. On examination, per vaginam, the os is healthy and smooth; but there are two hard tumours, about the size of a hazel-nut, attached to the anterior part of the cervix, altering its position, and making pressure on the urethra. The cervix is painful, on being touched; and exuding from it is a purulent acrimonious discharge."

She was ordered to take five minims of the tincture of iodine twice in the day; and at night the nurse was enjoined to rub a small portion of the unguentum iodinæ over the tumours. Castor-oil was daily administered, to regulate the bowels; and the local pain and irritation were alleviated by an opiate at night. The iodine produced both local and general excitement; and at one period during its employment, an obstinate epistaxis supervened.

A month after admission, when this plan of treatment had been steadily pursued, Dr. Ashwell examined and reported:—"I find little alteration in the external tumours attached to the walls; but those situated on the cervix are softer and resolving, though still so far indurated and enlarged, as to occasion mechanical inconvenience."

It would be superfluous minutely to detail the progress of this case. Suffice it to say, that the iodine was perseveringly employed, and was omitted only when its constitutional effects were visible. After a lapse of eight months, the tumours on the cervix had entirely disappeared, and this portion of the uterus resumed its natural size and character. The tumours felt externally, and, which probably occupied a portion of the uterine cavity, remained stationary. She remained in the hospital thirteen months; and at the expiration of this time she was enabled to walk between two or three miles, with comparative ease; her general health had greatly improved,

and she had assumed a more rounded and robust appearance. Accounts have since been transmitted by herself, in which it appears she has had no further need of medical advice; that the tumour of the parietes has ceased to enlarge; and that she is in the enjoyment of good health. It is now two years since she left the hospital.

Case 6.—Elizabeth ——, aged 46, was admitted as an out-patient of Dr. Ashwell, in the early part of 1833. She has borne several children, and till lately has enjoyed good health. For the last few months, however, there has been vaginal discharge, of a muco-purulent, and occasionally of a sanguineous character. She suffers much from central pains, especially from pain deep down behind the pubes; her appearance is cachectic and unhealthy ; the catamenia are irregular.

On examination, I found the cervix excessively hard and enlarged, without any distinct deposit of hard material; the edges of the os are puckered and uneven, and their surface slightly broken. Ulceration appears to be just commencing.

Sumat Julep. Iodinæ ℥ i. ter die. Utatur Ung. Iodinæ, more solito.

This case continued under treatment for nearly twelve months; but as it was only one out of many similar instances, there was no accurate note preserved of its progress towards cure; nor would it now have found a place amongst the Reports, if the patient had not accidentally presented herself, in November, 1835, in the out-patient room, and thus afforded to Mr. Tweedie, who originally had charge of the case, and to myself, the opportunity of carefully examining the os and cervix.

All vestiges of induration, puckering, irregularity, and abrasion of surface, have disappeared; and, with the exception of a leucorrhœal discharge, the parts may be pronounced entirely healthy.

Case 7.—Mrs. ——, aged 34, consulted me, at the late Dr, Babington's request, on February 7th, 1832. She had been married five years, without the occurrence of pregnancy. Her health, during three years of that period, had been good; and, even when I first saw her, she had the aspect of a woman free from any serious disease. About twenty-four months before, she perceived a "hard lump" in the hypogastric region; which also attracted the notice of an eminent obstetric physician, who was at the time attending her, in an attack of peritonitis. Since March, 1830, the tumour had been entirely disregarded; and she now solicited medical assistance, in consequence of inability to walk, impaired appetite, increasing pain in the hypogastric region, and emaciation, especially affecting the upper and lower extremities. The catamenia had never been interrupted, but their approach was invariably attended with pain.

On *examination* externally, I found two tumours; one situated in the right groin, low down on the body of the uterus; and a second tumour, harder and more distinct, occupying a large space of the anterior surface of the fundus of the uterus, producing an inequality of the abdominal surface, quite visible to the eye.

By a vaginal examination, the uterus was perceived to be exceedingly enlarged, and nearly as hard as cartilage. The os was easily found; but its situation was greatly altered, the enlargement of the cervix (which was lobulated, and very hard) pushing it upwards and forwards, so that it pressed on the neck of the bladder and urethra: the edges of the os were puckered, and slightly tender to the touch; and, by the speculum, it was seen that they were red.

The diet was regulated, to consist of milk and animal food, with half a pint, or a pint, daily, of mild ale ; wine and spiritous liquids being absolutely forbidden. In this, and indeed in all the cases where the os and cervix were affected, it was desired that marital intercourse should be avoided as much as possible.

Sumat. tinct. iodin. gutt. v. ex aquâ c. saccharo permistâ, ter die. Utatur ung. iodin. massâ instar nucis moschatæ cervici uteri, etiamque tumori abdominis, quâque nocte.

It would be tedious to pursue this treatment through the six or seven months which it occupied. Suffice it to remark, that occasionally, from its peculiar effects, the iodine was temporarily suspended. Within four months, the os and cervix were reduced nearly to their natural size; and the symptoms arising from pressure on the bladder, and interference with the urethra, passed away: there was, however, no perceptible diminution of the abdomino-uterine tumour: still, she resumed her usual activity; she walked without inconvenience; her appetite returned; and she entirely regained her flesh.

I examined this lady about September, 1835, three years and a half from the commencement of the treatment, and nearly three years subsequently to laying aside the use of the iodine. I found the os and cervix entirely healthy. I was informed that menstruation was regularly and naturally performed; that sexual intercourse was not productive of injury; and that her strength and vigour were entirely re-established.

Although the cases now detailed are only a few out of many which have occurred in hospital and private practice, they will, I trust, be sufficiently interesting to attract professional attention to the employment of iodine in hard tumours of the uterus.

The pathology of uterine tumours is, comparatively, of recent date. A few years ago, it was enough to denominate a disease

"a tumour of the womb," to place it amongst those affections for which palliation alone was attempted; a cure being thought beyond the reach of possibility. We yet have to deplore the limited circle within which our remedial agency is confined. Still, much has been done; and if zeal and perseverance continue to be exercised, greater success will doubtless be attained. I have denominated these growths "hard tumours of the uterus," from a desire to avoid controversy about their precise pathological character: and I wish it to be understood, that uterine polypi, vascular and fungated growths, from the mucous lining of the uterus (the "vivaces" of Herbiniaux), and indeed any kind of tumour appertaining to the viscus, of which hardness is not an essential condition, do not fall within the scope of this paper.

To suppose, or to call these hard tumours scirrhous, cancerous, or malignant, would, in some minds, instantly excite prejudice. If I am censured for using the term "hard," I excuse myself by saying, that it is the best and least controvertible expression with which I am acquainted. Professional men can scarcely avoid attaching a precise, and perhaps an erroneous idea, to such a term as "scirrhous," "cancerous," or "tubercular indurations." The denomination "hard tumour" has this advantage—it assumes only a degree of hardness, or firmness, above and beyond that which is healthy and natural, leaving the precise cause of such hardness to be decided by the result of the treatment, or to the further progress of the disease. Such a condition may be the effect of chronic inflammation; or, if of malignant character, it may yet be distant from that degree of malignancy which will resist all treatment.

Nevertheless, I am persuaded, if many of these structural changes (in the os and cervix) were examined without reference to their treatment at all, and especially by iodine, they would be pronounced to be scirrhous or malignant alterations. I am not, however, pertinacious on this point: it is not a matter of great moment; although my own conviction decidedly is, that these changes, whatever may have been their precise character at the commencement of the iodine treatment, would, without that treatment, have proceeded on to ulceration, and thus have left the patients with but a slight chance of recovery.

Until I employed the iodine, especially in the forms of ointment and tincture, directly to the diseased growths, I saw these indurations gradually getting worse: I perceived them slowly softening; till at length their surfaces were broken, and ulceration occurred. It is needless to say, that, after this event, constant irritation, fetid and sanious discharges, and occasional hæmorrhages, sooner or later induced a fatal result. I have examined many of these structural alterations with great care, both by the finger and the speculum; and, after repeated investigations, extending over several years, I am not disposed to think less favourably of the treatment by iodine.

That this substance exerts almost invariably a very marked influence over the glandular system, admits of no doubt. Messrs. Serres, Magendie, and Dumeril, in their Report addressed to the Royal Academy of Science on a Memoir by M. Lugol, on the use of iodine in scrofulous diseases, remark, "that, applied externally, its local action has always been very sensible: it excites on the surfaces of ulcers a feeling of smarting, accompanied with painful itching. This application to the diseased surfaces changes their appearance, and frequently produces as appreciable an effect as that produced by mercury on venereal ulcers. However, the mode of its action does not appear to be invariably the same. Sometimes the iodine seems to melt down, and resolve the tubercles. Sometimes, on the contrary, it urges them on to rapid suppuration. Iodine (say the reporters) has never, in the diluted form, caused emaciation, nor produced expectoration of blood, nor other accidents which many have imputed to its action."

It will be seen, by the title of this paper, that I have employed the iodine in structural alterations of the walls or body of the uterus, as well as in structural alterations of the os and cervix. The different success resulting from its use in these different seats of the structural lesion has been precisely what might, *à priori*, and from analogy, have been expected. In the walls of the uterus, which are not glandular, it has generally accomplished only a certain amount of good: it has restrained the activity of the disease, confining its bulk within the limits it had attained prior to its exhibition. I have watched some of these cases of large hard tumours of the uterus for two years since the remedy has been discontinued; and, as yet, there has been no augmentation of the growth, no renewed activity of the morbid process.

The most marked curative effect, however, of the iodine is in structural changes of the os and cervix—a circumstance peculiarly important and desirable. Hard tumours of the walls of the uterus of great bulk may and do exist for years, without producing any other than mechanical inconveniences. Small hard tumours of the cervix and os, on the contrary, scarcely ever continue long without undergoing alterations of condition: irritation is quickly induced in them, and softening and ulceration rapidly occur. I have already alluded to the fatal consequences of this state.

MR. TWEEDIE'S STATEMENT RELATIVE TO HIS REMOVAL FROM THE FREE HOSPITAL.

To the Members of the Medical Profession.

GENTLEMEN—You will have observed by the newspapers, that the governors of a public institution, entitled the "Free Hospital," Greville-street, have removed their resident apothecary, Mr. Hentsch, and one of their surgeons, Mr. Tweedie (myself), from their respective offices, on the alleged charge of having administered and recommended a nostrum called "Franks' Specific Solution." Such a proceeding is without precedent in the medical history of this country, and I deem it not only respectful to you, but due to my own reputation, to lay before you a brief statement of the facts connected with it.

About the beginning of February, 1835, Mr. Hentsch, the resident apothecary of the "Free Hospital," mentioned to me that Mr. Franks had succeeded, by distillation and otherwise, in freeing the "Balsam of Copaiba" from much of its impurity and irritating properties, whereby a quantity of greenish-olive, ropy sediment was removed, and the remedy so purified had been found by him to be more grateful to the stomach, and more efficacious as a medicine, than was the "Balsam" itself, before it had been so purified. He requested me to give it a trial.

Now, Mr. Franks was not at that time advertising like a quack; he was a regular medical practitioner, residing officially at the South London Dispensary, and also a governor of the "Free Hospital;" and observing, besides, that Mr. Green and Mr. South, at St. Thomas's Hospital; Mr. Bransby Cooper, at Guy's, Sir A. Cooper, Sir B. Brodie, and other eminent surgeons, were making trial of the preparation, I had no hesitation in prescribing it publicly for my patients at the "Free Hospital."

The result justified me in speaking favourably of it; so that when, two months after this, Mr. Franks called and asked me for my written opinion, I had no suspicion of the use that would be made of it; and in imitation of the example of Mr. Green, Mr. Cooper, and others, I wrote and gave him, without inquiry, a professional statement of the result of my experience of his "Preparation of *Copaiba*."

Since then, Mr. Franks, judging, no doubt, that more emolument would result to himself from selling what he chose to make a quack medicine, than from the orthodox pursuit of his profession, has taken out a patent for his "Solution of *Copaiba*," and has published our letters, mutilated and garbled, to suit his purpose, in handbills and in advertisements, as though we sanctioned a secret remedy, which he now empirically designates "Franks' Specific Solution."

The extreme indecency of such a proceeding struck me so forcibly, that within two hours after one of these bills had been pointed out to me, I had written a note expressive of my disapprobation, and requesting Mr. Franks, as a personal favour, to withdraw my letter altogether from his future publications. To this note I have never been favoured with a reply.

Shortly after this, learning that Mr. Green was about to apply to the Court of Chancery for an injunction to restrain Mr. Franks from the misuse of his testimonial, I obtained, through Mr. Bransby Cooper's kindness, an interview with Mr. Green, who very liberally permitted me to add my affidavit of facts to those of himself and the several other aggrieved parties. To this application the Vice-Chancellor replied, that as no stipulation had been entered into at the time of writing the letters, he had not the power of preventing Mr. Franks from publishing them—his authority only empowering him to order, that to whatever use they might be applied, they should not be garbled or altered in any way from the originals.

Such, gentlemen, is the entire story of my connection with this quack medicine. I leave it to you to decide, whether, after the perusal of the following documents, you will agree with the Royal College of Surgeons in acquitting, or with the governors of the Free Hospital in condemning me, for the misuse of my letter.

I subjoin the reply of the Royal College of Surgeons to my statement of the preceding facts, and also that of the governors of the Free Hospital, begging of you to contrast the one with the other, and to compare the facts of the case with the allegations of the resolution itself.

The Answer of the Council of the College of Surgeons.

"Royal College of Surgeons in London,
"27th January, 1836.

"SIR—Having laid before the Council of the College your letter of the 25th inst., and its accompanying statement, I am directed to acquaint you that the Council are precluded from giving an official or collective opinion on the subject; but they cannot believe that the Governors of any public institution will be induced to remove a surgeon from their establishment, merely for trying a new mode of administering an old and well known medicine.

"I am, Sir,
"Your most obedient servant,
(Signed) "EDM. BELFOUR, Sec.
"To Alex. Tweedie, Esq., &c."

The Resolution of the Governors of the Free Hospital, March 1st.

"That it appears to this meeting that

Mr. A. Tweedie, one of the surgeons of this Hospital, has, without consulting with his medical brethren, administered to the patients under his care, a nostrum called "Franks' Specific Solution," the properties of which could not be known to him; and has, in direct violation of the principle upon which this hospital was founded, given a written testimonial, recommending such nostrum, which recommendation being most extensively advertised, and appearing on the face of it to emanate from a surgeon of this establishment, cannot fail to injure the charity most seriously in the estimation of the public, whereby its utility will be lessened, its prosperity retarded, and the reputation of the other medical officers materially affected.

"Under these considerations, it becomes the painful duty of this meeting to resolve, that Mr. Alexander Tweedie be no longer a surgeon of this hospital."

Having thus laid before you the abstract facts of the case, as they refer to myself personally, I feel bound, out of respect to my late colleagues—Dr. Uwins, Dr. Ryan, and Mr. Lucas, to the late treasurer of the hospital, Pascoe St. Leger Grenfell, Esq., and to a very large body of governors of the institution, who have withdrawn themselves from it in consequence of these proceedings—briefly to call to your attention the method and means by which our removal has been effected.

About six months before the date of my removal, a motion of censure on this very account had been proposed against me by my then colleague, Mr. Marsden, at a quarterly general meeting of governors; but the explanation I gave at that time was so satisfactory, that by a large majority the question was referred to the medical officers of the institution, and the vote of censure was negatived. These gentlemen accordingly met, and came unanimously to a resolution that was calculated to set the matter finally at rest. This resolution was received and confirmed, without comment, at the subsequent meeting of the committee of management. It was with no small surprise, therefore, that myself in particular, and many old governors of the institution in general, perceived a new attempt, six months after it had been already settled, thus made to re-open the question, and so to introduce discontent and dissension in the institution.

I believe firmly, that the majority of the old and legitimate governors of the charity were, in truth, no parties to the scene that has taken place.

Prior to the meeting at which our removal was effected, reports had been insiduously circulated, which were calculated to prejudice the minds of the subscribers, by reason of their partial and one-sided character. It was stated that I was connected and on friendly terms with Mr. Franks, which is not the fact; it was insinuated that I had been paid for my letter, which is on the face of it a falsehood; and it was NOT mentioned that I had made every endeavour in my power to put a stop to the nuisance. In short, it was given out, that I was administering quack medicine to the poor, and was little better than a quack myself.

But the greatest act of misrepresentation of which I have to complain, is one that emanated from my late colleague, Mr. Wm. Marsden—whether done from ignorance of the fact or not, I cannot say; but Mr. M., unmindful of the delicacy due to a colleague in my predicament, thought proper to issue a circular to the governors, on the eve of their meeting, identifying himself with the business, gravely charging us with having recommended the "indiscriminate use" of a nostrum, and with having been guilty of "a direct violation of professional etiquette," alleging, moreover, that this was "a circumstance (identified as I am with the hospital), which is seriously injuring both my reputation and practice." In each of Mr. Marsden's circulars was enclosed a caricature handbill, purporting to be—"Copy, from bills issued by Mr. Franks." By this caricature it was made to appear that I had given a "1st Testimonial," and a "2nd Testimonial," when, in truth, I had never written but one letter. That headed—"1st Testimonial from Alex. Tweedie, Esq.," being, in fact, the mutilated and garbled one published by Mr. Franks before the Vice-Chancellor's decision, and that headed—"2nd Testimonial from Alex. Tweedie, Esq.," being the real letter, which he has published since that decision.

I am willing to believe that such things might have been circulated in ignorance of the facts—but the effect certainly was to mislead governors, and to make them imagine that I had really written two testimonials.

But the evening of meeting (23 Feb. last) arrived, and presented a scene which had perhaps not been anticipated by the very leaders in the business. Nearly 400 persons, many of whom were recognized not to be subscribers at all, and who had no right to be present, occupied the great room of the Gray's Inn Coffee House—absolutely a larger number than appears in the printed list of governors, including ladies, peers, corporations, parishes, &c. At this meeting it was impossible for any gentleman favourable to Mr. Hentsch or myself, to obtain a hearing—clamour supplied the place of reason—they came to vote, not to inquire—and they had it all their own way. The following incident well illustrates the scene:—A gentlemen rose to address the meeting "as a professional man"—at these words the confusion and uproar that ensued was beyond description; but the speaker was an adroit

tactician, for he lifted up his voice, exclaiming, "I am going to speak in favour of Mr. Marsden's motion." At these words the meeting became tranquil, and he proceeded.

After Mr. Hentsch was removed, there were those present who urged me to resign; but I think you will agree with me that such an act, with fear of expulsion before my eyes, would have been suicidal of my own reputation, and not worthy of that noble profession, of which I trust I am still a respectable and not dishonoured member. Accordingly when my turn for expulsion arrived, I first protested against the illegality of being tried by a meeting constituted as that was; and then having made my statement or defence for the satisfaction of the respectable governors, and having heard from my colleagues, Dr. Uwins, Dr. Ryan, and Mr. Lucas, that so far from considering their reputations likely to be affected by my conduct, "they were prepared to resign with me, if the meeting perpetrated such a gross act of injustice as to remove me;" and from another colleague, Mr. Jones, that although he did not consider his reputation to be of so sensitive a nature as to sustain injury from such a cause, he would not resign his office. Having done these things, the meeting became so uproarious, that it was manifest to the real Governors of the Institution that justice would not be done; and, therefore, I, accompanied by a large number of respectable friends, retired and left the meeting to sustain the whole responsibility of carrying in our absence, by "a majority of five to one," the resolution of which I have given a copy.

It was not my original intention to have intruded my grievance thus before my profession; but circumstances, and the advice of friends, have induced me to alter that determination. Allow me, gentlemen, to hope, that in your estimation I shall be acquitted, as I have been in that of the Council of the Royal College of Surgeons, and in my own conscience.

I have nothing further to say—than to acknowledge thus publicly with pride and gratitude, the assistance and unsolicited support afforded to me on the occasion, not only by many of the oldest and most respectable lay-subscribers of the charity, but also by a number of medical friends—amongst whom Mr. Bransby Cooper was the foremost—who generously and of their own accord came forward to bear testimony in my favour

I am, Gentlemen, your's faithfully,
ALEX. TWEEDIE, M.R.C.S.

3, Cannon Street, City, 15th March, 1836.

FREE HOSPITAL, GREVILLE-STREET.

To the Editor of the London Medical and Surgical Journal.

SIR—In your remarks concerning the Meetings of the Governors of the Free Hospital, held at the Gray's Inn Coffee House, on Feb. 23rd, and March 1st, you omitted to state that, at the last meeting, Mr. Hope handed to the Chairman a written protest, signed by many of the Governors, against the legality of the proceedings, as well as the decision of the former meeting, upon the ground that persons were permitted to vote in favour of Mr. Marsden's motion for my expulsion, who were not Governors.

Mr. Selson, the Chairman at this meeting (*being a thorough partisan of Mr. Marsden's*), refused to allow the protest to be read by the secretary, stating that the question, so far as related to myself (Mr. Hentsch), had been disposed of.*

I think it proper to mention that, to my knowledge, at least twenty persons were refused admittance at the last meeting (they not being governors), all of whom stated that they were present at the former meeting; and one of them, whose name I could not learn, told me he came there purposely to *serve Mr. Tweedie* as he *had served me* that day week.

Your insertion of the above will oblige,
Sir,
Your obedient servant,
WM. HENTSCH,
Late Resident Apothecary at the Free Hospital.

3, Furnival's Inn, Holborn, March 16.

The London Medical
AND
Surgical Journal.

Saturday, March 19th, 1836.

FREE HOSPITAL, GREVILLE STREET.

IN our two last numbers, we gave an exclusive account of the unprecedented proceedings of a packed meeting of pretended governors, which removed Mr. Tweedie from his office of sur-

[* We recollect that a gentleman did offer a protest, which was refused by the Chairman, whose decision was so vociferously received, that neither ourselves nor our reporter comprehended the tenour of the proposer. There is no doubt but the removal of Mr. Tweedie and Mr. Hentsch was illegal, unjust, and contrary to reason, common sense, and justice, as our correspondent will find by reference to our leader of this day.—ED.]

geon, and Mr. Hentsch from his office of apothecary to the above hospital. Our worthy contemporaries, who are eternally boring their readers with accounts of their marvellous exertions in defence of general practitioners, and of the whole faculty, have hitherto passed over the insult offered to the profession by the dismissal of two of its members from official appointments, not only without the slightest cause, but also by the lowest trickery. The Lancet of the 12th inst., gave an imperfect and incorrect report of the proceedings that took place at the Gray's Inn Coffee House, on the 23rd of Feb. and 1st inst., but not a word, after so long a period, upon the unfair and unjust manner in which the above-named gentlemen were treated. Our contemporary could not have been correctly informed of what passed at the meeting, or he never would have been silent on the subject. But "Honest Roderick" is too well versed in the iniquitous jobbing at St. George's Hospital, and too well acquainted with the utility of packed meetings in that quarter, to breathe a syllable against governors or pretended governors—he has too often witnessed of late, the power of might against right, in certain hospital proceedings, which were disgraceful to any man of education, and much more so to certain medical officers, of whom he is the hired hack and most obsequious servant. He of the Gazette has hitherto been silent on the treatment of Mr. Tweedie, and will remain so until he peruses these remarks on Friday, that is, on the day before his next appearance—and three weeks after the time he ought to have done his duty.

We congratulate our contemporaries on their wisdom in shutting their eyes and their pages against a talented and rising member of their profession, who has been most grossly ill-used; and they have great reason to felicitate themselves upon their prudence, and upon their *vox et vræterea nihil* effusions in support of the interests of medical practitioners! We are often highly amused, on perusing the frothy declamation of our independent confreres, on the curtailment of the salary of some village parish surgeon, whose name or fame is not known beyond the county in which he happens to reside; but let a London surgeon be unceremoniously removed, or rather ignominiously and illegally dismissed from his office, by a packed meeting, composed to no small extent of persons not governors, and who had no right to be present, and they are as mute as the dead. This conduct is no doubt perfectly consistent, and teaches a useful lesson to those members of the profession who may be silly enough to expect support from some of their pretended and fair weather-friends.

Unfortunately for such advocates of the medical profession, the daily journals of this week contain a document which so thoroughly exposes the mismanagement of the funds, and the affairs of the Free Hospital, the packed meeting system, and the illegality of the proceedings against Mr. Tweedie and Mr. Hentsch, that the Lancet will, and even the Gazette must, notice them. The editors have also received a statement from Mr. Tweedie, which we insert, and which will oblige them to take up the subject. But Roderick is too much embroiled in dirty work of the same kind, and too honourable, to boot, to do it justice—but happily his aid is of no consequence to one side or the other.

The document to which we allude will be found in another part of this number, and also the charges made by the committee, and a large number of governors, who have retired from the Free Hospital in disgust, imitating the example of the physicians, one of the surgeons, and the treasurer, Pascoe St. Leger Grenfell, Esq.

The last document emanates, we understand, from one hundred and fifty of the disgusted and re-

ired governors, most of whom were he earliest and best friends of the nstitution. They emphatically call pon the governors at large, and pon the public to aid them, in esta- lishing a Free Hospital, *free* in the rue sense of the word; where neither persons nor parties shall be llowed to job its funds, and to per- petrate the grossest abuses, under the acred name of charity.

We have reason to know that nany of the most influential resi- lents of the Borough of Finsbury nd of the City of London, are the se- eders, and will establish an institution ased upon principles which exclude ll jobbing. The advertisements of his powerful body, to which we have lluded, must inevitably ruin the resent Free Hospital; and the re- igned are in possession of evidence n proof of abuses in it, which would uin any similar establishment in the ingdom. There is, therefore, no se in our contemporaries attempt- ng to pass over the insult offered to Mr. Tweedie, which is one intended or all respectable members of the rofession; they may as well do him ustice with a good grace. Higher uthorities than they are have ap- roved of his professional conduct, nd have declared "that they did not hink it possible, that the governors f any public charity would remove ne of their surgeons, for having ried a new preparation of an old and well known remedy."

We are very much disposed to magine, that those who instigated nd effected the expulsion of Mr. Tweedie and Mr. Hentsch, have no great reason to feel very comfortable t the result. We told some of them, hat such a proceeding was most un- ust and unprecedented; that if arried into effect, it would lead to he resignations of those of the me- ical officers which have occurred; hat no respectable physicians or sur- eons in this metropolis, would con- ect themselves with governors uilty of such conduct; and lastly, hat many of the best and most re- spectable supporters of the institu- tion would resign in disgust, and the charity would be seriously injured or ruined. Every one of these predic- tions has been verified; and the ap- peal made to the public by the large body of governors who have retired, farther confirms our opinion. The last proceeding was not anticipated by the party opposed to Mr. Tweedie. They seriously imagined, that the storm would soon blow over, and that they could manage the institution their own way, on the resignation of the majority of the medical officers, who were incorrigible opponents of every species of abuse; and of many of the committee, who equally op- posed every motion for jobbing. It is not always a very easy thing to in- duce a number of honourable men to accommodate themselves to cir- cumstances, which may happen to be manifestly unfair and unjust; and therefore the retirement of such in- dividuals would not be deeply regret- ted by those whose tactics and poli- cy they invariably condemned.

We leave the victors to wear the laurels they have so fairly and ho- nourably obtained, by allowing per- sons who had no right whatever, not being governors, to vote as govern- ors, thus violating the rules of the institution, and illegally removing two of its officers. They are now placed before the bar of public opin- ion, which will doubtlessly award them that delivery which they have so well merited.

ACTION OF TARTARIZED ANTIMONY.

To the Editor of the London Medical and Surgical Journal.

SIR—Living in rather a remote part of the United Kingdom, I only receive your Journal monthly, consequently have not been able to answer the letter of "Medicus on Tartarized Antimony," sooner.

Medicus states, "if tartarized antimony, being hurtful to the animal economy, ex- cite vomiting, and if vomiting take place only from the pernicious effects of the emetic substance, why should not every thing hurtful to the animal economy be rejected in a similar way—by vomiting?"

From the doubtful manner in which he speaks of the hurtful effects of tartarized antimony on the animal economy, he may, for aught I know, disbelieve them entirely, notwithstanding I have asserted that in large doses it produces death, and in smaller very severe effects; which I think are very strong reasons for my forming an opinion that it is injurious.

"Medicus" appears to think that my theory is wrong, because "everything hurtful to the animal economy" is not thrown off in the same way as tartarized antimony. He is, no doubt, aware that nearly all the metallic salts, and a great number of vegetable poisons produce vomiting when taken in over doses, and numerous other injurious substances, not medicinal. He must likewise know, that when the brain, and nervous system generally, are so oppressed from the effects of a narcotic, that all the functions are superseded, medical men endeavour to relieve the system by the use of the stomach pump. Some medicines act so powerfully, and so rapidly, on the system by striking, if I may use the expression, at the fountain head, that a cessation of life takes place instantaneously; consequently neither vomiting nor any other effort is exhibited.

He asserts, "that there are several emetic substances which will produce vomiting, if given in large doses, are not thrown off by nature observing the most rigid economy, through the medium of that mild emunctory the perspiration." I never affirmed the contrary, but confined myself to tartarized antimony; the substances to which he alludes, for aught I know, may be parted with by the urinary organs, or by that extensive surface, the pulmonary mucous membrane. I still think it would be difficult, even for "Medicus" to prove, that some portion does not escape by the insensible perspiration, as it is well known some medicines do, sulphur, for instance, and which, perhaps, would never have been dreamt of, but from the effect it produces on silver kept in the pockets of those who take it.

I am sorry that I should have offended the ear of "Medicus" by using one word six times in my paper. I speak feelingly, for ever since I read his letter my ear has been dinning with that odious word vomiting; he having used it seven times in one paragraph, and it appears no less than sixteen times "in his short letter."

It would certainly be trespassing grossly on your valuable Journal, to convert it into a dictionary, by explaining words *commonly* used, both by physiologists and naturalists; therefore I must beg leave to decline giving an "interpretation of the terms nature and vitality."

He appears to be perfectly at a loss to discover the economy of conveying tartarized antimony, when introduced into a vein, or into the cavity of the pleura, &c., to the stomach, to be parted with. Let us suppose that the absorbents (which in a state of health are always absorbing), do not take it up, but leave it attached to the pleura, what would be the consequence? Why violent pleuritis, which in all probability would end in effusion and death; and in the case of its being left in contact with the venous tissue, phlebitis, that fatal inflammation, most likely would be excited.

Now, "Medicus," I see a great deal of economy in this; by the absorbents conveying it into the general circulation, it is thrown off in a very rapid manner indeed, and without any very violent effects. He states that it operates, according to Dr. A. T. Thomson, through the medium of the nerves; no doubt it does! I should like to know what medicine acts, or what phenomena take place in the animal body, *without* the medium of the nerves. And shortly after he says, "we must look for some other cause for the interesting action called vomiting." He is certainly at liberty to do so.

I never attempted to give an explanation of the "interesting action called vomiting," or of the *modus operandi* of emetics: I merely state that such effects are effects of nature, to free herself from an injurious substance.

In conclusion, I must beg leave to say, that I have a decided objection to enter into a controversy with an anonymous writer; if a man be not ashamed of what he is writing, I do not see any reason why he should assume a fictitious signature. *Spectas et tu Spectaluris.*

I remain, Sir,
Yours, obediently,
W. Moses.

Isle of Man, March 8, 1836.

ROYAL INSTITUTION.

Friday, March 11, 1836.

Dr. Arnott on Heat and Ventilation..

Dr. Arnott commenced his lecture by making some general observations on the great importance of a due regulation of heat and air, both with regard to health and disease. In health, such regulation was understood in the common phraseology, by the expression of pain or pleasure; hence we spoke with pleasure of "the fresh air," and of the "mild atmosphere," while an excess or deficiency of air or heat was expressed as painful. The due regulation of heat and air should be a part of every man's knowledge. Nature had wisely ordained that the impure air expired by the lungs should ascend, as it has become lighter by being heated and expanded, than the surrounding atmosphere. Under ordinary circumstances

then,we could never, awake, or asleep, inspire the same air again; the same law holds good with regard to combustion, the impure air thrown off aseending, from its having increased in volume and temperature.

An English open fire, taken as a standard in the general view of ventilation, acted in the following manner: half the heat was carried away up the chimney, half of it was radiated through the room; here then was at once a waste of half the fuel, and the incurring of a great expense without any benefit; but again, half of the heated air from the room was carried up the chimney by the current, which was always going to it. The other reasons for dispensing with a fire, was the very great uncertainty of temperature which it must always produce; the flying about of particles of dust and ashes, the opening of the door acting as a funnel in throwing in air, and the part of a layer of cold air being upon the floor from the ascent of the heated, which was breathed over and over again; the frequent accidents by fires might also be mentioned.

To remedy some of these defects the Russian stoves had been invented; there was considerable saving of fuel in using them; the heat was not carried from the room by the chimney, but was given out by the iron; there was, however, a fatal objection to the use of this stove, which was, that when the iron, forming the chimney, became red-hot, the air of the room became impure and unfit for respiration. A remedy had been proposed for this, which was the covering up of the iron chimney with a large quantity of brick work; but here another objection arose, from the length of time the heat was in penetrating the mass of brick work.

The plan of warming rooms by throwing in a quantity of heated air by a large aperture was not good: it could not keep up an equable temperature in all parts of the room. It was common to warm manufactories in which it was necessary to keep up a certain degree of heat, by means of hot water pipes being placed round the room; and as it was known exactly how much heat a square foot of such a pipe will give out, the quantity of pipe required for any sized apartment might be readily calculated.

Dr. A. had, during the winter, a box of hot water in connection with the kitchen-boiler, placed in his library, and the sensation of warmth it produced was delightful; but as such an apparatus was expensive, and as it could not be moved from one room to another, he thought he might construct a moveable box; he, therefore, had a large one coated with water, and a small furnace placed in the middle—the heat being regulated by a bar of metal composed of zinc and iron, which by its expansion regulated a valve, and by that means kept up an equable temperature. He then thought that some objections might be made to this plan—that the box might be said not to be water-proof, &c.—and he therefore determined on dispensing with the use of the water, and using heated air alone. He had a large box constructed for this purpose, and a small furnace placed in it; the box was divided by a partition,almost through its whole vertical extent, and the air was constantly moving about in the box; the box was warmed in the space of two minutes, and the fire did not require attention for many hours together.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 12th, 1836.

DR. ADDISON IN THE CHAIR.

The Modus Agendi of Medicines.

THE discussion on Dr. Uwin's Paper on Medicine was resumed.

Dr. ADDISSON had, at the last meeting of the Society, spoken at some length on the question. He confessed he was disappointed in Dr. U.'s paper, for it professed to be on the Modus Agendi of Medicines, but it had not contained one word on the subject. From the variety of experiments performed by himself (Dr. A.) and Mr. Morgan on the mode in which poisons act on the system, they had been led to believe that all medicines acted on the sensibility of the part, and through sympathy on the system at large; these experiments had led them also to infer, that when poison was introduced into the blood, it did not prove fatal by being taken into the circulation, but by acting on the delicate structure of the blood vessels themselves. It would be reasonable to suppose that the poison acted through the circulating fluid, and was carried through that medium to remote parts; that such blood, if introduced into the system of another animal, would affect it in some way or other. An experiment was made to ascertain if this was the case. A direct communication was made between the carotid artery of a dog that was labouring und erthe poison of stryehnia, and that of a dog perfectly healthy; the healthy dog was not in the slightest degree affected. How would you explain this, if the poison acted through the medium of the blood? Again, it was found that an animal was longer in being affected, and in dying, when poison was introduced into the carotid, than another, where the same description of poison was inserted into the femoral artery. How could this be explained, if the poison acted by being carried through the circulating system? He (Dr. A.) believed it was not necessary for medicine or poison to enter the blood; he could not make any distinction between the action of poison or medicine on the system, except in the degree one might act more speedily than other; but there was

not any specific difference in the mode in which they acted. His opinion then was, that the nervous system alone, and probably that portion of it subservient to organic life, was the medium through which both poisons and medicines acted on the system at large.

Dr. JOHNSON could not altogether agree with Dr. Addison, though he fully concurred with that gentleman in the belief that violent poisons act on the nervous system alone, before they have time to be taken into the circulation, in the same way as a blow on the stomach may destroy life. But did this apply with respect to physic, which acted slowly, and had time allowed it to get into the circulation, in the same way as food did? and the chyle was always the same, whatever substances went to form it. How could you explain the action of various medicines on various organs? It surely could not be from nervous sympathy alone that salivation was produced when mercurial ointment was rubbed in on the thighs; or when iodine was taken, that the mammæ were absorbed; or that when the nitrate of silver was used in epilepsy, the skin became blue. He was disposed to believe that when medicine acted slowly, it took effect upon the system generally, through the medium of the nervous and vascular system conjointly; that the first impression was on the nervous sensibility of a part, and that the vascular system of the part was influenced by the action of that sensibility, and that these two actions conjoined, acted on the general system, but in what way it was impossible to explain. The *modus operandi* of medicines by nervous sympathy alone was not sufficient to explain their effects.

Dr. ADDISON (who being specially called on left the chair), contended that though the second impression might be made on the blood, it could only be through the medium of the nervous system. He believed that whatever affected the blood-vessels affected the blood. Dr. Addison then repeated the experiment we have given above, and contended Dr. Johnson had advanced nothing which could overthrow his belief in the sole action of the nervous system. With regard to the action of different medicines on different parts, as brought forward by Dr. Johnson, it might be asked, who could conceive the effects of fear in lowering the heart's action, and of anxiety in altering the states of certain secretions—we might ask how is this? It is as difficult to explain as the question of Dr. Johnson was to answer.

Dr. LEONARD STEWART had thought sometimes, when considering that the different ways in which the same venereal poison acted when applied to different persons, and on other facts of a like nature, that it was not the action of medicine on the body which should be considered, but the action of the body on the medicine.

Mr. JOHNSON thought Dr. Addison's experiments were too complicated to be decisive; the more disturbance there was created, the more undecisive would be the experiment. Dr. Addison had left out the action of the absorbents altogether. The experiments ought also to be repeated.

Dr. ADDISON replied that the experiment has now been before the professional public some years, and had never been invalidated by any counter-experiments; until such time as some part or all of the views which had been advanced by Mr. Morgan and himself had been disproved by such experiments, he did not see that it would be just to ask them to repeat their experiments. They, however, did not bring them forward as infallible, but for the purpose, if possible, of gaining a step in the knowledge of the operations of nature.

After some further discussion, in which Mr. King and others took part, the Society adjourned.

Hospital Reports.

NORTH LONDON HOSPITAL.

Fracture of the Pelvis.

GEORGE FULLER was brought to the hospital at twelve o'clock at night, on the 31st of December, having sustained a fracture of the pelvis, from a quantity of earth falling upon him, when at work on the Birmingham railway. At the time the earth gave way, he was standing upon a cross-beam, about eight feet from the ground—he was thrown down on his right side. His left ilium was broken, apparently from the pressure of the earth, which is calculated at about three tons. The crest of the ilium is detached from the rest of the bone, and quite loose. Crepitation is very distinct lower down, and is increased by rotating the thigh; leading the examiner to infer that the fracture extends into the acetabulum. There is considerable bruising of the soft parts.

Four, A.M.—He is beginning to rally from the state of collapse in which he was when brought to the hospital; warmth has been applied to the extremities, and some warm tea given to him. Pulse 80, and soft. He is lying with the thigh of the affected side bent on the pelvis, which, he says, is the easiest position. He has passed no urine since the accident, but feels a great desire to do so; and, by straining, a few drops of bloody fluid came away. About a pint of urine, mixed with blood, was drawn off by the catheter. The catheter was again introduced at twelve, A.M., and about half a pint of urine, which became very turbid on standing, was removed.

Mr. Liston saw him to-day, and ordered a broad belt to be passed round the pelvis; the long splint to the thigh fixed at the upper extremity by a broad bandage round the chest. No extension was required, the intention being merely to fix the whole, so as to prevent motion. The band round the flexure of the thigh was therefore dispensed with; the catheter was introduced at eight in the evening; the urine was clear and natural; he derives great relief from the apparatus.

Jan. 1, 1836.—He voided his urine to-day without assistance; some cough, which he had previous to the receipt of the accident, disturbs the fracture; there is also some tenderness of the abdomen, and swelling in the seat of the injury.

℞. Solut. muriat. morphiæ;
Vin antimonii tart. ā ā *m*xl;
Mist. camphoræ, ℥ i, f. haust. hora somni sumend.

Jan. 2.—Has slept the greater part of the night, and expresses himself to be much better; bowels confined. Rept. haust.

Jan. 3.—Has passed a quiet night; being unable to relieve the bladder, the catheter was again introduced; a slight increase of pain and tenderness in the hypogastric region; cough more troublesome; pulse 92; tongue natural; bowels confined.

℞. Ol. ricini ℥ i statim.
℞. Vin antim. ʒ ij;
Oxym. Scillæ, ʒ vj;
Tinct. camph. C. ʒ ij;
Infusi lini, ℥ vij. M. ℥ i sumend urgent tuss.

The catheter was again introduced this evening; warm fomentations have been applied to the perinæum.

Jan. 4.—Complains of pain of a pricking nature in the seat of the fracture; the urine is again exceedingly turbid; cough better.

Jan. 6.—Much better; cough relieved; he passes his urine unassisted.

March 1.—He has continued slowly to improve since the last report, having had no further bad symptom; the limb is now uncovered, and the only complaint is stiffness and some swelling of the ankle. He appears stouter than on his entrance into the hospital; he was discharged well on the 8th.

ST. THOMAS'S HOSPITAL.

Syphilitic Eruptions successfully treated with Hydriodate of Potass. By Dr. Williams.

The following forms of syphilitic eruptions were lately cured with hydriodate of potass: roseola syphilitica, purpura s., lepra. s., rupia syphilitica, and lichen syphiliticum.

It is a great improvement in practical medicine to cure syphilitic diseases of a secondary kind with iodine; and many combat the primary symptoms with the same means. A few years ago, nothing would do but profuse salivation, caused by an excess of mercury, which generally injured the constitution of the patient for the remainder of life.

Chronic enlargement of the liver is now cured without mercury, and by a remedy which if properly employed can never injure the general health or constitution.

Those who are desirous of becoming acquainted with the different species of syphilitic eruptions are afforded the opportunity in Mr. Judd's valuable work on Urethritis, illustrated by many beautifully-coloured plates. We copy the following case from the Clinical Reports of St. Thomas's Hospital: It was a case of dropsy, terminating fatally in profuse diuresis.

The patient was aged 33, and admitted under the care of Dr. Burton.

Aug. 27, 1835.—Of large frame, but with pale and flabby fibre; is the subject of hepatitis, ascites, and anasarca. It cannot be ascertained whether there be any enlargement of the liver, on account of the swollen state of the abdomen, but from the symptoms there can be no doubt at least of functional derangement of that organ. Respiration is free, and there is no sign of organic disease of the heart. He has not any pain in the loins, nor deposition in the urine. The absorbent glands of the neck are greatly enlarged, forming a kind of collar which extends from ear to ear. The thighs and legs are much swollen, and the latter are in a state of considerable diffused inflammation, with dirty-looking ulcers on them, around which are scattered pustules; these he ascribes to the use of a wash he had applied when under treatment in a hospital from which he was discharged about three weeks since. He is able to walk about, and does not complain of pain in the cavities, except when pressed on the region of the liver.

He was put on milk diet, and ordered Hydr. Subm. Pulv. Digit. Pulv. Scill. āā gr. j ter die. Infric. Ung. Iod. abdomini.

Aug. 31.—Ung. Iod. Mit. gland. cervic. infricand.

Sept. 2.—The medicine having acted rather sharply on the bowels, it was discontinued, and the following prescribed:—Pil. Hydr. gr. ijss. Pil. Scill. gr. ij omni nocte—Tinct. Scill. *m* xx Sp. Æth. Nitr. ʒ j Dec. Tarax. ℥ ij ter die. This was continued till

Sept. 16.—When in its place was ordered Liq. Potass. Hydriod. (Lugoli) ʒ ij ex Dec. Tarax. ℥ iv ter die. This was continued without any change occurring in his condition till

Sept. 20.—On this morning he was suddenly attacked with vomiting and cold shiverings, succeeded by great heat of skin and profuse perspiration, and when visited by the apothecary the shiverings, heat of skin, and perspiration, were found co-existing—the

respiration natural as to frequency, but very laborious, and attended with loud, grating, sibilous and mucous rattle. The inflammation of the left leg had extended up and along the inner side of the thigh, and presented a livid appearance; an enlarged gland also on the anterior edge of the left armpit had become very red and painful. He makes no complaint, but when asked says he has some pain in the chest: and he answers questions hesitatingly, which is not his usual manner. There is neither pain in the head nor greater heat on it than that of the general surface—there is no injection of the conjunctivæ, and the pupils are not dilated but contract on the approach of light. He vomits frequently—bowels have been twice moved. Within the last two hours he has passed about a quart of urine, exhibiting the appearance of chalk and water. Omitt. medicam. præced. ℞. Tinct. Opii *m* xxv ex Mist. Camph. stat., et Mist. Efferves. 2nda vel 3tia quâque hor. si urgeat vomitus. V.S. ad ℥ xvj.

Evening.—Breathing considerably relieved, and he answers questions with less hesitation. He has passed urine in excessive quantity throughout the whole day, amounting to a common-sized pailful and a half, which has the same appearance of dirty chalk and water. For about five minutes after the urine is passed it remains perfectly clear, but then becomes gradually turbid. He has had several very liquid dejections of the same dirty chalky character, but containing some bile; and he has vomited several times throughout the day, matter of the same character and appearance. The blood is much buffed, cupped, and so firm as to retain the impression of the finger, which is with some difficulty forced through the coagulum. He expresses himself better.

Sept. 22, Morning.—He continues passing urine in still larger quantity, a great portion of which has been thrown away, but there is now a pailful standing by the bedside, of the same kind as that already described. The vomiting and purging also still continue. Breathing has again become more laborious. The perspiration and heat of skin are excessive. He appears partially soporose, but the pupils act freely, and he is quite conscious. Pulse about 100, full and firm. V.S. ad ℥ xij.—Addant. Acid. Hydrocyan. *m* ij Tinct. Op. *m* viij dos. sing. Mist. Efferv. Cat. Sinap. epigastrio.

The vomiting and purging continued throughout the day, and the urine was still passed in immense quantity. Towards evening the perspiration became cold and clammy—the pulse smaller and quicker—the breathing more difficult—countenance anxious—he became restless and unconscious, and expired about 7 P.M. The anasarca of the thighs and legs was somewhat diminished, but the abdomen retained its fulness. Sister states that this morning she noticed the swellings in his neck had considerably subsided since yesterday, and towards evening his neck had become quite thin.

The friends would not allow an inspection.

FREE HOSPITAL.

We have received the following Circular:—

In consequence of recent transactions at the Institution called the "Greville Street Free Hospital," a very large number of the old and respectable Governors, three of the Medical Officers, and the Treasurer, have separated themselves altogether from its concerns. They have, indeed, felt it due to their characters, thus to express their unequivocal condemnation of the circumstances now referred to, and which will be found advertised in the public journals.

But, desirous that the legitimate objects of a useful Charity may be secured, and that an Institution may exist, which shall be so constituted as to preclude the possibility of any party or personal considerations interfering with its executive, they contemplate a New Establishment, in which every Guinea subscribed shall be appropriately expended, and the monstrous principle of a general—especially of a Charitable Foundation—being made subservient to the purposes of one, or a few, shall be sedulously and effectively avoided.

This, it is presumed, can only be done by vesting agency in the hands of individuals, whose motives of conduct must necessarily be good, inasmuch as no reward will ever await them beyond the consciousness of promoting the physical, and therefore the moral good, of the Poor.

A Committee is formed for the purpose of realising the above most desirable objects; and those individuals who feel disposed to accord with, and aid the proposed plan, will be good enough to transmit their names and subscriptions to Thomas Clay, Esq., 56, Friday Street, Cheapside; or to William Gresham, Esq., 3, Castle Street, Holborn, Honorary Secretary, pro tem.

CORRESPONDENCE.

Index to our last Volume.—In reply to several correspondents we beg to state, that indisposition has hitherto prevented us from preparing the Index. But we hope to have it ready for next number.

Dr. Blicke's communication will appear in our next.

A Governor of the Free Hospital.—The letter is too severe; and the public advertisements of this week render it, in our opinion, unnecessary.

We beg to refer our friends to our leader of this day, to learn how much we care about Roderick or his attack.

THE

London Medical and Surgical Journal.

No. 9. SATURDAY, MARCH 26. Vol. I.—(1836).

CLINICAL LECTURE
ON
LEPRA SYPHILITICA.

BY PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Two Cases of Lepra Syphilitica—Diagnosis of Lepra Syphilitica—Treatment—Biniodide of Mercury—On the Application of Nitrate of Silver in Erysipelas—Cinchona Bark in Lepra—Warm Baths—Length of Time for maintaining Mercurial Action — Tinctura Ferri Muriatis after the Mercurial Action.

Gentlemen—There are two cases of lepra syphilitica, on which I intend offering a few remarks. It is somewhat remarkable that we should have two cases of this disease admitted into the hospital nearly at the same time.

The first patient is a Pole. His name is Francis Paszkowski, ætat. 33; admitted Jan. 22nd, 1836. About five years ago, he received some very severe injuries by being beaten about the nape of the neck, and the left side of the chest and abdomen, with the butt end of a musket; since this, he has always been troubled in winter and during foggy weather with cough and difficulty of breathing, together with palpitation of the heart on making any exertion. He also complains of flying pains about the body and limbs, particularly in the right arm and lower part of the back, where he has received some bullet wounds. The pains are increased in severity during damp weather. He has an eruption all over the trunk of the body, and about the chin, consisting of red, elevated, circular patches; they are hard and covered with scales in the middle, appearing to heal from the circumference. They do not itch or smart in the least; they appeared three weeks ago; but we cannot place much reliance upon his description of the time of the appearance of the eruption. His throat is also very sore, the soreness appearing to be increased on swallowing, and by pressure. He denies having had any venereal affection during the last five years. Five years ago, he had syphilis, for which he took some pills, containing some preparation of mercury, for sixteen days, but which did not produce any tenderness or soreness of the gums; he prepared some decoction (probably sarsaparilla, from his description), which he took during the sixteen days; and he applied the lapis infernalis to the chancres.

The pulse is 65, and natural; the tongue is clean, but indented by the teeth round the margin; the bowels are rather constipated. From a conviction that this eruption was syphilitic, I was anxious to try the hydriodate of potass. I therefore ordered

℞. Sol. potassæ hydriod., *m.* xx, ter quotidie sumend.;
Pulv. Doveri, gr. x, hora somni sum. o. n.;
Baln. cal. omni nocte. D. M.

25th. Much the same: complains that he is not able to sleep owing to the pain in his limbs. I was convinced that we should do very little good without mercury, in some form or other, and I prescribed:—

℞. Pil. hydrarg., gr. j;
Extr. conii, gr. iij, omni nocte sumend.;
Auge solutionem pot. hyd. ad *m.* xxx.

29th. Pains not much relieved; the eruption appears to have healed in some parts.

Auge sol. hydriod. potassæ ad *m.* xl.

Feb. 1st. The eruption has increased about the forehead; he complains of his bowels being constipated.

Addetur sing. pil. p. rhei, gr. vj.

5th. Continues the same. I then ordered the biniodide of mercury, in order to get the system under the influence of mercury sooner.

℞. Hydr. biniodid., gr. i;
Extr. conii, gr. xii.

Fiant pil. vj, sumat i hora somni omni nocte.

Omitte medicamenta.

8th. Much the same; the eruption appears fading away about the forehead; the cuticle resumes its natural appearance first round the circumference.

15th. His throat is so sore that he is scarcely able to swallow. I am not certain

whether the inflammation and ulceration of the throat was the effect of the biniodide of mercury or not: I have remarked that ulceration of the throat is frequently the result of the administration of the salts of iodine whether in combination with mercury or not. There have been some illustrations of this in the hospital; and I thought it the same in this case. I therefore ordered him to intermit the pills, and some leeches to be applied to the throat.

Omitte pilulas. Appl. hirud. x gutturi.

℞. Antimon. tart., gr. vj;
Misturæ camphoræ, ℥ vj.

Cap. cochia mag. ii, 6ta quaque hora. D.T.

17th. Throat much better, but still very sore.

℞. Hydr. oxymur., gr. j;
Aquæ, ℥ viij.

Fiat gargar.

20th. This morning symptoms of erysipelas shewed themselves in the face; the face being considerably swelled, painful, red, and there being a sensation of tightness.

℞. Argenti nitratis, ℈j;
Aquæ destill., ℥ j.

Sit lotio faciei applic.

℞. Hydr. submur., gr. j;
Micæ panis, q. s.

Fiat pil. 6ta quaque hora sumend.
Sumat decoct. cinchonæ, ℥ ij, inter pil.

22nd. The erysipelas has been completely checked in its progress by the application of the nitrate of silver. Throat continues sore.

Rep. gargar. hydr. oxymur.

26th. The erysipelas has completely disappeared, and the eruption has assumed a much better appearance, being in many parts scarcely distinguishable from the skin.

29th. Continues improving; mouth still very sore, but the eruption is scarcely perceptible.

Sumat pil. bis die.

Baln. calid., omni nocte.

March 7th. Quite well, except that his mouth is rather sore.

The next case of lepra syphilitica occurred in a female:—

Eliza B. ætat. 21. — Admitted, Feb. 25th.—She is of pale sallow complexion; is married, but has had no family. She says that her husband is of sober, quiet habits, nor is she aware that he is, or ever has been the subject of syphilis, or any other venereal ailment. She enjoys pretty good health generally, but she has occasionally a pain in the left side. About five weeks since, she complained of pain universally in the limbs, and an eruption appeared over her body of a bright red colour, in rather small circular spots, slightly raised above the surrounding surface, and containing no fluid, except one on the thigh larger than the rest, from which there is a watery fluid exudes, which is in fact an ecthymatous eruption. The eruption is of a circular character, and in dying away leaves small scales, which are more evident in the circumference of the spots, their centres first assuming the healthy appearance of the skin. The eruption did not first make its appearance on the knees or elbows, but is diffused over the body. There are a few spots upon the mons veneris, of a more inflamed appearance, and sore. The spots are attended with a distressing itching sensation when she is in bed, or exposed to the warmth of a fire; but at no other times are they any inconvenience to her.

The itching is by no means common in lepra syphilitica, and is one of the means of diagnosis between it and lepra nigricans, and the other species of lepra.

She has been under mercurial treatment for the pains in the limbs, and during that time she caught cold, to which she attributes the appearance of the eruption; she declares that she never had any sore in any part of her person previous to the appearance of the present eruption. The pulse is pretty natural; she complains of slight pain in the side; she has no appetite; the tongue is furred; she has a disagreeable taste in the mouth; the bowels are regular. There is ulceration of the tonsils, chiefly of the right.

Feb. 26th. ℞. Hydr. submur., gr. v; hora somni sum.; sumat haust. sennæ comp. cras. mane; sol. potassæ hydriod., *m.* xxx, ter quotidie sum.

℞. Hydr. biniodidi,
Extr. belladonnæ, ā ā gr. ¼. Ft. pil. omni nocte sumend.

29th. The eruption is diminishing; the bowels are freely operated upon; the tongue is not so much furred.

March 2nd. The eruption is still diminishing, and altogether improved; the tongue is clean; the pulse is 80, and regular.

Sum. decoct. cinchonæ coch. ampla ij, inter sing. dos. solutionis potassæ hydriod.

3rd. She is improving; the appetite is returning.

4th. Habt. baln. tep. alterna nocte; augeatur hydr. biniodid. ad gr. ⅓.

7th. The eruption is disappearing; is very much paler than on her admission; her general health is pretty good; she has her bath regularly.

9th. The pulse is natural; the tongue is clean; the eruption has almost disappeared, and she has no uneasiness with it now. Her bowels are regular.

Augeatur hydr. biniodidum ad gr. ½.

11th. She is improved; the eruption completely disappearing; the inflamed bases scarcely visible.

There can be no doubt that these are cases of secondary syphilis. The diseases with which cases of lepra syphilitica are most likely to be confounded, are the lepra nigri-

cans and vulgaris, but if we attend carefully to the symptoms and to the aspect of each, there can be no difficulty in forming a correct diagnosis. Lepra nigricans appears in dark, livid patches scattered over the body, covered in the centre, as in these cases, with thin scales; they are circular, and so far they resemble syphilitic lepra. In the lepra syphilitica, there is much less dryness of surface, much less of that scurfy character, than in the lepra nigricans: the patches are somewhat soft and pulpy, at least pliable; they yield to the touch, and are less covered with scales than any of the other species of lepra, whereas those of the lepra vulgaris are dry, harsh, and covered thickly with scales.

In the syphilitic lepra also, every patch, when closely examined, is found to arise from a small, hard, reddish tubercle, which gradually increases in its circumference, and as it dilates, becomes elevated at the margins above the surrounding surface: after it has continued for some time, you will find that the little tubercle has slowly suppurated, and in the decline of the disease, where the ulceration existed, you will perceive at first a small black depression, which becomes a whitish cicatrix.

The patches in lepra syphilitica are more distinct than in lepra vulgaris, separated at greater distances from each other, and not coalescing and forming compound patches. In lepra vulgaris, the patches coalesce and form larger patches, in which the circular character of the eruption may still be easily traced; but in lepra syphilitica you will find that every patch is distinct from the other, even in the forehead, where they are generally so much more numerous than elsewhere. The patches or spots seldom exceed the size of a shilling; they are generally about the size of a sixpence. I do not recollect ever seeing a patch of the lepra syphilitica as large as half-a-crown piece.

Another striking characteristic is obvious in the decline of the eruption: as each patch disappears, the dark point, or minute shallow depression gradually loses its dark colour, becomes white, and appears like the cicatrix of a puncture in the centre of each patch, so that when the patches are all gone, you may count all the white points as plainly as you may count the pitting after small-pox.

This secondary effect of syphilis occurs at very different periods after infection; in general, it appears in from three to four months after the primary affection: I have seen it appear as late as six, eight, twelve, and even eighteen months after the primary syphilis; you will find, however, great discrepancies in the statements of the patients; some of them will date the occurrence of the original disease at a long time previously, and others will deny having had the disease at all; in fact, it is natural that people, especially married people, should be anxious to conceal it, and they have some kind of salve for their consciences in declaring they have never had syphilis.

As far as my experience has enabled me to judge, this disease never disappears spontaneously; on the contrary, I have seen it pass into a new stage—into an ulcerative stage, with a disagreeable sanied oozing from the patches. When the disease has been properly treated by mercury, this stage never appears, but cicatrization speedily commences after the administration of the medicine.

The parts of the body which lepra syphilitica most commonly affects, are the forehead, breasts, extremities, back of the neck, groins, mons veneris in the female, and pubis in the male; on the forehead, it is necessary to distinguish it from a species of maculæ which often attends dyspepsia of the irritable gastric kind. These patches, although somewhat resembling lepra syphilitica, are never so decidedly circular, never elevated above the surrounding surface, never scaly, nor of a copper colour, although in a slight degree of a brownish hue, but they have a slight roughness, more like that of psoriasis. When the eruption appears on the palms of the hands or the soles of the feet, desquamation of the thick cuticle covering these parts takes place several successive times; but this is not peculiar to this species of lepra, as every cutaneous affection of these parts causes a similar desquamation. When it occurs in parts where two surfaces are opposed to each other, as in the axillæ, or in the inguinal or perineal regions, the patches remain soft and smooth, and the scales never make their appearance, because of the perspiration constantly bedewing them and keeping them moist. When the eruption affects the points of the fingers, almost invariably the nails are thrown off, or they become very harsh, dry, and easily break.

In the present cases, the affection of the throat was present, but this is not always the result of this form of venereal eruption. In many instances the eruption appears, and there is no change in the tonsils or fauces; and, on the other hand, affections of the throat are very common, you are all well aware of, in other cases than syphilitic, so that there is very little dependance to be placed upon this circumstance; nor are the flying pains about the body, or those of the bones, increased by the heat of the bed, an invariable accompaniment of this disease, although they sometimes occur in it. Periostitis, however, is not an uncommon symptom, and even nodes occasionally rise.

Treatment of Lepra Syphilitica. — Some form of mercury is decidedly essential in this disease: I have never seen any cases of lepra syphilitica cured without it; I have tried sarsaparilla, nitric acid, chloride of

soda, and hydriodate of potassa, but have never cured a single case of the disease with either of these remedies alone, without the use of mercury.

The biniodide of mercury was employed in these cases, because the mercury is taken into the habit much more readily in combination with iodine than with any other substance, and the iodine itself has a beneficial effect upon the capillary system.

I know not whether the erysipelas in the case of the man was the effect of the biniodide of mercury—this is merely a conjecture; I have certainly seen two or three cases in which the patients were taking the biniodide of mercury, and became the subjects of erysipelas. In this and in all other hospitals, there is always a liability of erysipelas coming on whenever there is a predisposition on the part of the patient. In this case the application of the nitrate of silver was very successful: my opinion is, that we have erred in using the solution of the nitrate too strong; we have either used a strong solution, or we have pencilled the parts affected with the nitrate itself; this plan is very injurious when, along with redness and swelling, there is vesication. In such cases, I have always seen the nitrate of silver, when applied so strong, productive of injury. The best strength is a scruple of the nitrate of silver to an ounce of water; when applied of this strength, it stimulates moderately, operating at the same time as a gentle astringent, and changing morbid into healthy action. When the vitality is low, and much vesication occurs, the stronger solutions augment this, and increase instead of removing the evil.

I shall not make any further observations on erysipelas at the present time, as I shall soon have to bring that subject before your notice.

I place great reliance upon the use of bark in these cases. I preferred it, in the first instance, from analogical reasoning. At an early period of my professional career, I was led to observe the analogy between diseases. Now, no means of treating lepra nigricans answers so well as that with the cinchona bark, administered after depleting measures have been adopted; then the cinchona bark, with the diluted muriatic or nitric acid, is very successful: seeing its use in this disease, I was first induced to try it in the lepra syphilitica. In these two cases, as usual, it answered extremely well: I have seen its good over and over again, and it is an excellent adjunct to the mercurials. Some tonic or other is necessary in all cases of lepra; we must maintain the tone of the habit, even whilst we are bleeding and diminishing the excitement of the surface; I think perhaps the decoction of cinchona is preferable to the sulphate of quinine; I know not for what reason: perhaps the sulphate of quinine may keep up the irritability of the digestive mucous surface, if it exist.

The warm baths have been used in this disease with advantage.

I have one other remark to make, gentlemen, that is, with regard to the length of time for keeping up mercurial action. There is no necessity for continuing it to salivation; all that is necessary is that you should be fully satisfied that the system is under the action of the mercury. I have never seen any case of lepra syphilitica that did not require a continuance of the mercurial action after the gums have been slightly affected, for from four to six weeks, at the the least, and, in severe cases, for eight, or even ten weeks. You might inquire—Would sarsaparilla be necessary after the mercurial treatment? I consider it quite unnecessary: for the irritability of habit which remains after the action of the mercury for such a period, I have found the tincture of the muriate of iron most beneficial; it is an excellent medicine to allay nervous irritability; it is better when given in combination with the carbonate of potass or soda, at the moment of being taken; the carbonate of iron is thus taken into the habit in a very advantageous manner. I have found the sulphate of iron, in the dose of two grains, in combination with a single grain of the extract of aloes, and two or three grains of the extract of taraxicum, taken two or three times a day, allay nervous irritability in a very striking manner.

Professor Thomson had the man and woman brought into the Clinical Theatre, and remarked that those students who had seen the patients some time before, would notice how very much they were improved. The Professor directed the students' attention to the small, puncture-like, dark-coloured depression in the centre of the circular spots; the gums are still affected, and the copper-coloured eruption is rapidly disappearing from the whole surface. The same characteristic features were exhibited in the eruption over the back of the neck and other parts of the female, although not so strikingly marked as in the case of the man. The disease in the female is getting rapidly well, being altogether of a milder character than in the man. There was one spot which, Professor Thomson remarked, if seen alone, would have led him to pronounce it a case of lepra vulgaris.

Erratum in Heading of last Lecture.

For "Spasmodic" *read* "Anti-periodic."

LECTURES ON THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE II.

You will recollect, gentlemen, that in the lecture immediately preceding the present, I called your attention to the three master principles of organized vital and intellectual being, viz. *circulation*, more or less entitled to the term, according to the greater or less approach to perfection in the individual or class; secondly, *assimilation*, or the faculty of converting into its own essence extraneous matter; and, thirdly, *perception*; this last power including locomotion, and in man stretching itself out beyond even conscious sensation (its second degree) into imaginative anticipation and moral thought; in such sort as to make the transition from the brute to the human, abrupt and large—and to cause medicine, with all its powers, to be a mean thing as to effect, unless the qualities and peculiarities now referred to be duly investigated and practically applied.

It will be further recollected, by those who did me the honour of being present at the introductory lecture, that I stated Cullen's classification the least objectionable of all systems—to have especial reference to the above faculties and functions of human existence—that his first class, *Pyrexia*, is meant to include, principally, disorders of circulation—inflammations and fevers especially (both so named without much precision); his second, *Neuroses*, comprehending those deviations from the healthy standard that have especial reference to the organs of feeling; and the class *Cachexia* mainly representing and including disorders of the assimilating and secerning functions, disorders which are vulgarly designated those of a bad habit of body.

The plan, therefore, which I shall now pursue will be, first, that of pourtraying in a general way the habits and peculiarities of the circulation; and, transposing in some measure Cullen's order. I will, secondly, present a slight sketch of the physiology of the lymphatic and absorbing system—and then speak especially of the nervous power, and its very important peculiarities. From the anatomy and physiology I shall proceed to the pathology of these functions; and, including in this last, the general agency of restorative means, or the *modus operandi* of medicine, the first division of the course will be brought to a close.

I am then, according to the plan laid down in the introductory lecture, to pursue the course topographically and more nosologically.

It is scarcely necessary to premise that our anatomical and physiological researches will be but superficial, and must be regarded principally as deducing pathology, and regulating practical indication.

Of the Blood, and the organs and powers by which it is circulated.—That homogeneous uniformity which the blood assumes while moving in its appropriate conduits under the command of life, is very shortly changed by extravasation. When blood flows from the body into a vessel, the separation almost simultaneously is effected into a watery and solid part—the first containing many saline ingredients, which will fall afterwards under our notice—the second, or solid portion, being made up of what in the schools has been called the cruor, and the red particles—the cruor being further separable into the fibrin and colouring principle. This colouring principle was first, I believe by Dr. Wells, suggested to be of an animal nature; others subsequently ascribed it to an impregnation of subphosphate of iron; but since pneumatic chemistry has been more cultivated, the opinion or something like it, of Dr. Wells has again obtained. "There can," says Brande, "be but little doubt that the formation of the colouring matter of the blood is connected with a removal of a portion of carbon from that fluid, and that its various tints are dependent upon such modification of animal matter, and not, as some assumed, upon the different states of oxidizement of iron which it has been thought to contain."

What is usually called the coagulable lymph of the blood; or otherwise (when it is separated and lies a white mass on the surface of the crassamentum), its buff—is the fibrine of modern chemists, and is generally taken to be the material from which, or rather the matter itself of which muscular fibre is formed. The relative quantity of this to other parts is supposed to be the index of greater or less strength—and so, in fact, it is—but then we are not to be misled by the appearance of a larger than ordinary quantity of this white matter on the surface of the solid mass; because this is rather a consequence of a greater tardiness of separation. In inflammatory affections, for example, the blood is so mixed as to its relative ingredients, that for the most part a larger time is taken for the one portion to disentangle itself from another, and hence the appearance alluded to. But this is not strictly "dependent on the circumstance of slow coagulation of blood, and consequent separation by *gravity*, of the colouring matter from the fibrin, but on an unusual tendency to separation between these two substances." When the coagulum lies on the surface of the crassamentum, "large, loose, and flocculent," however abundant, it is any thing but an indication of a state which demands or will admit of large detractions of blood.

Fibrin, however, unquestionably is the measure of strength—while the predominance of serum implies weakness. But the red particles may superabound, as, probably, in some cases of hectic tendency, where we have crimson colour without a proportionate quantity of fibrin, and, therefore, the seeming of health, without its reality.

It is said, I know not whether upon due authority, that a more or less marked ferocity in the brute creation, is attended by a greater or minor quantity of fibrin in the blood.

It is natural to send our thoughts abroad, and push them into the inquiry of the *quo modo* of circulating fluidity: and, at first, it was fair to suppose that motion regulates this circumstance; but no motion *out of the body* will long preserve the uniformity necessary for fluid condition; and it is further a curious and decisive fact against motion merely being the cause preventive of solidification—that if you isolate part of the blood from the circulating mass by two ligatures on the same vessel, at a distance from each other, the intervening blood, although comparatively, at least, at rest, retains its fluidity.

I call your attention to this particular, for two purposes. In the first place, some inexplicable principle of vitality connects itself with the laws of circulation, so as to invalidate a great deal of what has been laid down by physiologists on the blood's course through its vessels; hydraulic and other laws having been assumed without a due recognition of those principles by which these laws are, at the least, materially subordinated when the blood's impulse through vital tubes is to be explained. And, secondly, because it is of importance to recollect that, in many cases, where vital powers are feeble, the blood that is separated evinces a tardiness to coagulate—and from this, rather than from mere buff on the surface, the propriety or impropriety of repeating venesection should be rather inferred. I would say, further, that denseness of crassamentum argues strength — buff, activity. That arterial blood coagulates more quickly and firmly—and that its fibrin is also more abundant than in venous blood, is sufficiently explained upon the principles laid down*.

In a fluid of such importance as the blood, it will readily be supposed that chemical as well as physical and mechanical changes are momentarily elaborated. These mutations, however, in connection with disease, have not hitherto been ascertained with any thing like a precision authorising deductions as to the relation of this and that variation with this and that form of morbid state. Indeed the apparent innoxious nature of the blood while the frame is under the influence of the most noxious poison, is a striking and momentous fact. It has, for example, been ascertained that the flesh of an animal which has died of hydrophobia (this flesh containing, of course, part of the blood), may be eaten with perfect impunity.

But it is only, as I have said, apparently, that the blood is so free from a specific poison, when such poison has caused its death; there the principle still lies in a sort of latency, and only waits to be called out into act and essence by its appropriate excitant. All secretions, as I shall afterwards show, are but portions of the blood altered by the living agency of particular organs. The saliva, for example, of a rabid animal is the blood of the animal acted on in an especial manner by those organs which are called salivary glands; and we all know that it requires but a very minute quantity of this saliva to infect the whole frame even of a robust man, and then it must be mixed with the blood; while a pound of the blood, so infected, may be eaten or drank harmlessly.

Dr. Rush, of Philadelphia, caused a negro girl to swallow some small pox virus, even unmixed, without the production of the disorder; and whatever we may think of the humanity or rectitude of such an experiment, it is decisive in reference to the principle. I think it is further stated in the relation, that the girl afterwards took small-pox by inoculation in the usual manner.

In further conformity with this principle, we find that the disease diabetes, which will be afterwards discoursed on at large, is constituted mainly by the separation of saccharine matter from the blood, through the medium of the kidneys; yet during the presence of this emaciating distemper, the nicest analysis will fail to detect sugar in that very fluid which is at the same time forming its pabulum.

How materials obtain an entrance into the blood without being received from without is equally difficult of explanation. "Some regions, like New South Wales, at least on this side the blue mountains, contain no limestone whatever, and others no iron or sulphur, while all these are capable of being obtained apparently as freely from the blood of the inhabitants of such regions, as from

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* "Arterial blood," says Dr. Alison, "has been ascertained to differ from venous, not only in its colour being scarlet instead of purple, but also,

"1st. In coagulating both more quickly and more firmly.

"2nd. In the crassamentum formed in it, and especially the fibrin of that crassamentum bearing a larger proportion to the whole blood.

"It is, therefore," he adds, "with the circulation of arterial blood through the different textures, almost exclusively, and with the separation of portions of the arterial blood in them, that the other vital phenomena of the living body are connected."

those who live in quarters where such materials enter largely into the natural products of the soil. It is," says the author from whom I extract—Dr. Mason Good, "perhaps most reasonable to conclude that they are generated in the laboratory of the animal system itself, by the all-controlling influence of the living principle." The same law holds good in vegetable or merely organized life: marine plants furnish soda, for example, while the plants themselves are nourished and supported by matter of which soda forms no part of its composition.

These facts and the circumstances by which they are modified, will afterwards fall under notice, when I shall be considering the agency of therapeutic powers; we cannot here go into any extension or exemplification of them without transgressing limits. Let it suffice to state, that the solidists, and especially those theorists who maintain that all medicinal action is referrible to a primary excitation of the nervous and muscular fibres, are to a certain extent justified in their inferences by these laws of vital circumstance, while there are other facts and principles, afterwards to be referred to, which make against their presumptions.

I will, just before I conclude the present lecture, remark that many estimates have been made in respect to the average quantity of blood contained in the whole system of an adult—some calculating it at 100 pounds, while others have placed it so low as 30. Perhaps about 40 pounds may be considered the mean quantity; but I need scarcely state why it is difficult even to approach precision in this inquiry.

There is one fact, I believe pretty generally allowed, that man, as well as more brain, has also more blood in proportion to his size and weight than other animals. It is also said that human blood contains a larger portion of iron than that of quadrupeds, while quadrupeds have more than fishes, and fishes more than birds.

I will not even agitate the question "whether the blood be alive or not," because I believe the dispute to be a mere logomachy, and one nearly of the same nature as the residence of the soul, whether in the pineal gland or in any other portion of the encephalic mass. We cannot too sedulously separate the language of poetry from the language of physiology.

At our next meeting I shall offer a few remarks on the powers by which the blood is circulated; I had indeed intended to make this the topic of our present meeting, but as it cannot well be divided, I have preferred its reference to our next opportunity.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(Illustrated with Numerous Plates).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE VIII.

History of Male Obstetricians (concluded).

The principal French obstetric authors since 1800, to the present time, are the following:—

Millot, who was the author of several works of very little importance. The best of his productions was his Supplement to all the Treatises on Midwifery, which appeared in 1804; and this was followed by his absurd work, intitled, "Art of Procreating the Sexes at Will." Saccombe published his Science of Midwifery in 1801, his French Lucina, and his Advice to Midwives, soon afterwards, which were of minor importance.

The next obstetric writer was Maygrier, who published an excellent Treatise on Midwifery*, and a splendid collection of plates illustrative of the subject†. Capuron followed, and was more successful as a teacher and writer than his immediate predecessor. He is the author of four standard produc-

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* Science et Art. des Accouch. 1814—1817.

† Nouvelles Demonstrations d'Accouch. 1822.

tions—a Theoretical and Practical Treatise on Midwifery*, a Treatise on Diseases of Women†, Legal Medicine‡, and lastly, a Treatise on Diseases of Infants from Birth to Puberty§.

One of his pupils, M. Gardien, published his "Complete Treatise on Midwifery, Diseases of Women and Children," in 1808, in four volumes, octavo. The style of this work is too diffuse, and the meaning of the author is often obscure. It is not much quoted by modern writers, although it well deserves more frequent citation.

The next treatise of value is that of M. Velpeau, which though prepared in 1823, only appeared in 1829, and in a third edition in 1835. This work, so far as it extends, far excels all the productions of French authors. But it only embraces the anatomy and physiology of the generative organs, natural and morbid parturition, and very superficial accounts of puerperal and infantile diseases. It evinces great personal observation, laborious research, a perfect acquaintance with the works of the ancient and modern obstetric authors, and it abounds with quotations and references. It far surpasses any modern treatise on practical obstetricy, and is a first-rate classic work.

There were, however, many eminent obstetricians in France, since the commencement of this century, who published neither monographic nor systematic works. Among these, we find Desormeaux, Dubois, and Deneux, who were the most eminent practical obstetricians and professors of Paris in this century. M. Desormeaux was Professor of Midwifery at the University of France, and the author of many erudite and practical essays on obstetric subjects in some of the French medical dictionaries and periodicals. M. Deneux published some valuable memoirs on rupture of the uterus‖, ovarian hernia, and thrombus of the vulva, 1830. M. Dubois, chief physician to the Maternity of Paris, is not as yet the author of an original treatise, but it is to be hoped that his son, M. Paul Dubois, now a distinguished Parisian obstetrician and professor, will favour the cultivators of obstetric science with the scientific and practical conclusions of his father—the Gallic patriarch of obstetricy. The original essays of M. P. Dubois lead us to expect much better things from him hereafter¶.

MM. Lebreton** and Moulin†† have also contributed to the advancement of obstetric science.

The succeeding works were by Mad. Boivin‡‡, and Mad. La Chapelle §§; and M. Velpeau's Traité de l'Art des Accouch., 1829, which has been greatly enlarged and improved in a third edition, 1835. It is, so far as it extends, the best and most comprehensive obstetric work of this century. There are two other productions which deserve to be noticed: the manual of M. Hatin, which is much too concise; and that of M. Duges, which is an excellent compendium for junior students.

The principal authors of the departments of France, since 1800, are Schweighreuser of Strasburg, who published his Archives of the Art of Midwifery, in 1801: Flamant, his Synoptical Table, 1796; and Guillemot, his various valuable essays on obstetric subjects.

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* Cours Theorique et Pratiques, &c. 1811—1834.
† Depuis la Puberté jusqu'à l'âge critique, 1811.
‡ Medecine Legale, relative aux Accouchemens, 1821.
§ Traité des Maladies des Enfans, &c. 1813.
‖ Essai sur les Ruptures d'Uterus, 1805.
¶ Sur l'Auscultation applique à la grossesse, 1831; sur les Causes de l'Accouch. par le Vertex, 1833; sur le Mecanisme de l'Accouch. 1834.
** Tables Optomatiques, &c. 1820.
†† Cours Pratique d'Accouchemens, 1821.
‡‡ Memorial de l'Art. des Accouch. 1813—1824.
§§ La Pratique des Accouchemens, t. 4. 1821, 1825.

Besides the writers now enumerated, there are many other essayists, whose productions have appeared in the different French dictionaries and periodicals, as original essays.

I cannot help observing here, that it is rather remarkable that during the present century, France has contributed fewer valuable treatises on obstetricy, than England or Germany, though she had previously held the first place in the records of this branch of medicine, as appears by my preceding statements.

The principal German writers on obstetricy, since 1800 to the present period, are the following:—

Osiander of Gottingen, who strongly advises cephalic version, after the example of Flammant, and who was the author of a general treatise on obstetrics*, and also a Manual for Midwives, 1796. But I must remark, that some of his practical opinions were injudicious—as using the forceps once in every two cases, and others that might be mentioned.

He was succeeded in the chair of obstetricy by Mende, who contended that supporting the perinæum, more frequently caused its rupture during parturition, than when no assistance was given†. Wigand of Hamburg insisted that the uterus was occasionally attacked with tetanic spasm, and that external manipulations were sufficient to change certain vicious positions of the fœtus‡. Siebold and Stark of Vienna, who published many valuable obstetric essays in their journal. The treatise of Schmitt on doubtful pregnancy, of Hohl on obstetric auscultation§, the work of Michaelis on the Cæsarian operation‖, and Riecke's statistical work, which contains an account of 220,000 cases¶, are entitled to high commendation.

The memoir of Reisenger, on the induction of premature labour, the History of Obstetricy to the 19th Century, by Meissner**, and the valuable dissertation of Koklschveter††, on the varieties of the length of the umbilical cord, must not be forgotten. The manuals of Jorg‡‡ and Froriep§§, are instructive works for students and midwives; but Germany possesses several obstetric treatises of much greater value. Thus, Ritgen at Giesen, Carus at Dresden, Busch at Marburg, and now at Berlin, Nægèle at Heidelberg, and Kilian at Bonn, are authors whose productions are entitled to especial notice.

Reitgen was a veterinary surgeon, who proposed a new mode of performing the Cæsarian operation; but he unfortunately appeared to have been much too fond of inducing premature parturition. I must observe that little reliance is placed on his opinions at present.

Carus, who is celebrated as a zoologist, comparative anatomist, and physiologist, is the author of one of the best German works on obstetricy, or, as he terms it, gynæcology‖‖‖; but it is much less perfect than the manual of Dr. W. H. Busch¶¶. This author must not be confounded with his namesake at Strasburg, or with J. L., or H. L. Busch. His treatise is very comprehensive, and embraces almost all obstetric subjects. He quotes 2,475 works on obstetricy. Some of the precepts of Dr. Busch are worthy of being cited.

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* Handbuch Entbindungskunst, 1819—1832.
† Ausfuhrliches Handbuch der Gerichtlichen, &c. 1819.
‡ Beitræge zur Theoret. Med. Prakt. Geburtshulfe, 1798—1808.
§ Die Geburtshul Exploration, 1833.
‖ Abhandlungen aus dem gebiete der Geburtshulfe, 1833.
¶ Beitræge zur Geburtshulflischer Topographia. &c. 1827.
** Was hat das neunzehnte Jarhundret fur die Geburtshulfe. Gethan, 1825.
†† De Funiculo Umbilicali frequenti mortis nascent. causa. Lips. 1833.
‡‡ Handbuch der Geburtshulfe, 1807—1820.
§§ Theoret. prakt. Handbuch des Geburtshulfe, 1814—1828.
‖‖‖ Lehrbuch der Gynökologie, &c. 1820—1828.
¶¶ Lehrbuch der Geburtskunde, &c. Marburg, 1833.

In cases of hernia of the uterus, he does not hesitate to practise the Cæsarian operation. According to him, the uterus ruptures more frequently, anteriorly and laterally, than posteriorly; the placenta may be attached to the uterus by cellular or fibrous tissue, which sometimes contains albuminous, cretaceous, or osseous matter; and these last anormal productions he considers to be supplied by the decidua or caduca; that placental degeneres-cences are generally caused by external injuries or chronic inflammation; and that parturition ought to be excited in cases of convulsions and hernia of the uterus.

Kilian is the author of many instructive essays on the circulation of the fœtus, on the axes of the pelvis, and of the translation of Burns' work.

But the most celebrated obstetric German author of this age is Nægèle of Heidelberg, whose numerous works are most favourably quoted by modern obstetric writers. His treatise on menstruation*, his work on the pelvis†, his dissertations on cephalæmatomes‡, on atresia of the vagina§, on exostosis of the pelvis‖, and his memoir on the diagnosis of cranial tumours¶, are valuable and instructive productions; but his best work is on the mechanism of parturition**, in which he modifies the opinions of Sir Fielding Oulde, of Dublin, already mentioned. He contends that the antero-posterior diameter of the head is almost always placed in the diameter of the left sacro-iliac symphisis, or cotolyoidian space at the superior aperture of the pelvis; that it is the parietal, and not the occipital bone, which is first engaged; that it is the cheek, and not the whole visage, which ascends in face presentations; the ischium, and not the coccyx, in breech cases; and that the head, on arriving at the inferior strait or aperture of the pelvis, becomes engaged before it makes a turn or rotatory motion. The work of this author is, however, much too concise on the management of the puerperal state, and is, upon the whole, very incomplete as a systematic treatise.

The other European obstetric writers, since 1800, are comparatively few in number. Richter has given a clinical report of the obstetric hospital at Moscow, in which he says he has cured retroversion of the uterus by means of a *hysteromochlion*, or an instrument calculated to raise the organ and keep it in its place; he also describes prolapsus of the uterus during gestation, and uterine polypi, weighing four pounds and a half, which he removed by ligature††. Another Russian essayist is Dr. de Deutsch of Livonia, who published on version in 1826.

The name of Saxtorph is still famous in Denmark‡‡; and those of Anceaux of Leige, Vandenzande of Antwerp, and Wrolicke, who published on the pelvis of the human species, belong to Belgium and Holland.

Spain and Portugal have no modern medical writers, but they have a few authors whose ideas are centuries behind the present state of obstetric science.

Switzerland is nearly as far behind as the last named countries; and has scarcely any work worthy of notice since Rœmer's translation of Denman's work.

The Italian obstetric authors, towards the close of the last, and during the present century, are very numerous, the chief of whom I shall enumerate.

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* Erfahrungen und Abhandlungen, &c. 1812.
† Das Weibliche Becken, &c. 1825.
‡ De Cephalæmatome Neonator. 1822.
§ Hiebbut de Atresia Vaginæ, 1832.
‖ Haber, Dissert. Inaug. 1830,
¶ Journ. complet. des Sc. Med.
** Ueber der Mechanism der Geburt., &c. 1822.
†† Synopsis praxis medicq Obstetreciæ, &c. Mosquæ, 1810.
‡‡ Elem de l'Art des Accouch. 1801.

Vespa published a manual in 1760*; Valli a more extensive work†; Valota, the Modern Midwife‡; Valle his obstetricy§; Montegia his translation of Stein's treatise‖; Assalini was the author of different essays, and the inventor of a tire-tête¶; Biegeschi his treatise on hæmorrhage**; Trinchinetti his essays on abortions, and laceration of the perinæum††; Gabbiati his memoir on pelviotomy‡‡; Bongiorani his Manual for Midwives§§; Majon on the expulsion of the placenta‖‖; Balardini on the secale cornutum; Biancini on the utero-placental circulation; Ferrario, Bili, Omoboni, Lovati, Ciniselli, and others, have published several isolated essays in the Italian periodicals. Mazzoni brought out his Clinical Report of the Obstetric Hospital at Florence, in 1832¶¶; but no systematic treatise has been published since the re-impression of that of Asdrubali.

The new world has also contributed its obstetric writers. The first of these was Dr. Bard, who published a compendium***; Dr. Francis, of New York, who translated and annotated Denman's work, 1821; Dr. Horner, of Philadelphia, who was the author of a small manual†††; Dr. Dewees, professor of obstetricy at Philadelphia, who published his valuable essays on various subjects connected with midwifery, 1824, and his compendious system of midwifery, in 1825‡‡‡.

Various essayists have contributed important papers to the American Journal of the Medical Sciences, and to the other transatlantic periodicals.

Such is a brief and imperfect history of obstetricy.

I have thus attempted to give an imperfect sketch of the history of ancient and modern obstetricy, with a view of proving that it had its cultivators in almost all ages and nations. In collecting materials for this part of my subject, I found many facts accumulated in the histories of medicine, and in the valued productions of MM. Astruc and Velpeau—but many elsewhere.

I deem historical introductions to any branch of medical, or any other science, however laborious, of great importance; because they not only shew the rise and progress of the subject, but appropriate to the right owners their original opinions, inventions, and improvements.

It now remains for me to recommend the best obstetric works, and the mode which the senior and junior students should adopt to become thoroughly acquainted with this branch of medical science.

At our next meeting, I shall commence the proper business of this course.

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* Trattato della Arte Obstetricia, 1760.
† Trat. del Parto Naturali, &c. 1767.
‡ La Levatr. Moderna, &c. 1791.
§ Opera d'Obstetr., &c. 1792.
‖ Vers. Ital. di Stein, 1799.
¶ Observ. Prat. 1810. Nuovi Stromenti, &c. 1811.
** Trat. delle Emorag. Uterin. 1816.
†† Observazioné sopra la Retrovers., &c. 1816.
‡‡ Oper. del Taglio della Sinfisi del Pube, 1819.
§§ Obstetricia Teorica e Pratica, &c. 1826.
‖‖ Sur un Nouv. Moyen. d'Oper. la Deliv. 1828.
¶¶ Statistica Ostebr. di Santa Maria Nuova, 1832.
*** Compendium of Theory and Practice of Midwifery, 1815.
††† Compendious System of Midwifery, 1824.
‡‡‡ His works on the Physical and Medical Treatment of Children, on Diseases of Women, and on the Practice of Medicine, appeared subsequently.

Cases in Midwifery. By Richard H. Thomas, M.D., Lecturer on the Principles of Obstetric Medicine, Baltimore.

Miscarriage—Concealed Hæmorrhage before the Rupture of the Membranes.—March 16, 1834. I saw Mrs. L. in the sixth month of her first pregnancy. She complained of pain in the uterine region, and a sense of tightness and distress in the organs, which felt remarkably hard, even during the interval between the pains, during which the hardness does not perceptibly increase.

I took from the arm twelve ounces of blood, the pulse being full and firm, and ordered a dose of oil and laudanum. In the evening enemata of starch and laudanum were given, and a sinapism applied to the spine, my design being to prevent what I believed to be threatened—a miscarriage.

17th. She feels better this morning, having passed a good night; has less pain; the womb does not feel so hard, but on one of its sides there is a lump, evidently caused by some irregularity in its development. At ten A.M. true uterine pains came on, and at two P.M. the waters were ruptured, and the fœtus of six months expelled, the breech presenting. The placenta speedily followed; upon inspecting it, there was found on its uterine surface a large firm clot, weighing more than a pound. The cellular structure of the placenta was entirely destroyed by pressure, except a portion, an inch in diameter, which had continued attached till the end of the labour. The hæmorrhage had plainly occurred before the labour, and the blood had been poured out between the uterus and the placenta, where it had been retained by the adhesion of the membranes.

Not one drop of blood was lost until after the expulsion of the child, and then only in the form of a firm coagulum, lodged, as I have described, behind the placenta, the uterine surface of which presented quite a concavity. The patient did well.

It is strange that Velpeau should be disposed to deny the occurrence of concealed hæmorrhage before the rupture of the membranes. That it does happen rests upon testimony which cannot be gainsayed. Several very interesting cases are detailed in the Lancet, for 1829-30, by Mr. Coley, and the appropriate plan of treatment laid down. Mr. Ingleby and others also relate similar cases, but I am not aware of any which occurred so early as the sixth month of utero-gestation, at which period it might be supposed the uterus would resist any sudden distension more than at the full term.

Twins—Hæmorrhage after Delivery.—Mrs. F., who lived six miles in the country, had usually very tedious, severe labours, followed by flooding. She was taken in labour, for the fourth time, Aug. 23, 1834, and sent for me. I found her as follows:—After a labour of four hours, she had been delivered of twins, about forty minutes before my arrival. Violent flooding immediately ensued. It still continues, though in a less degree; her pulse is very feeble; countenance exsanguined; frequent faintings; uterus large and soft; placenta retained. A tea spoonsful of raw brandy was given. Frictions and grasping the uterus alternately caused it very soon to expel coagula, and an immense placenta—a single one with two cords. She seemed very faint; another tea-spoonful of brandy was given. Cold to the vulva, continued pressure and frictions over the uterus, arrested the hæmorrhage. As soon as the pressure was moderated, again the uterus relaxed. A dose of secale cornutum was given. In fifteen minutes the contraction was so firm as to allow me to remove my hand, and the organ did not again become relaxed. A compress and firm bandage were applied, and the hæmorrhage did not return.

The good effects of frictions and grasping the uterus were here signally manifest. These means will, in a majority of instances of hæmorrhage after labour, succeed. I have not for years been obliged to introduce my hand into the uterus, either to arrest hæmorrhage, or to remove the placenta: that it is very rarely indispensable I am convinced. The efficacy of the ergot, in giving tone to the contractions, cannot be doubted by any one who will take pains to get a good article and give it a fair trial.

Puerperal Convulsions relieved by the Long Forceps.—May 13th, 1834, I received a message from Dr. Jones of this city, requesting my immediate attendance with instruments. The case was that of a young woman with her first child. She had been in strong labour for six hours, when she was seized with a convulsive fit, which lasted fifteen minutes, from which she had partially recovered when I arrived. The pulse was full and hard, and the countenance flushed: she complained of headach. A vein was opened in each arm, and about two pounds of blood was taken. While the blood was flowing she had another strong fit, and, on making an examination, the head was found firmly engaged in the superior strait, the occiput looking backwards. The waters were discharged, and the os uteri well dilated, as were the other soft parts. The pains were regular, but not very expulsive.

Under these circumstances, we agreed that it would be best to expedite the delivery by the forceps. Though the head was high up, the long forceps of Baudelocque, as modified by Dr. Dewees, were applied without difficulty. Advantage was taken of the pains, which still continued to act with them; yet so firmly was the head wedged that I was obliged to exert much strength to make it descend, and nearly one

hour was consumed in completing the labour. The perinæum was much elongated, but not injured, the head of the child being very large. The placenta was soon expelled, and our patient did well. As frequently happens in cases of ecclampsia, the child was dead.

There was no recurrence of the convulsions. In puerperal convulsions, the indication, after unloading the blood-vessels, is to deliver as soon as it can be done with safety to the mother. In a case like the above, the long forceps is the only means which gives the least chance to the child. Were we deprived of them, we should in an urgent case be obliged to employ the perforator; the short forceps would be utterly useless.—*North American Archives of Medical and Surgical Science.*

Cases in Surgery, with Remarks. By N. R. Smith, M.D., Professor of Surgery in the University of Maryland.

Case of Lacerated Wound of the Thumb—Re-union of the severed Member under unfavourable circumstances.—I was a few days since called in consultation by a medical friend, Dr. Whitridge, to a case in which a frightfully mangled wound of the hand had been inflicted by a large circular saw. The patient was a mechanic of about forty years,—a man of tolerable health, and temperate habits. The instrument had struck the thumb on its dorsum, within a third of an inch of the joint of the first phalanx and metacarpal bone, and had completely severed the organ from the hand, with the exception of a small slip of integument on the side towards the palm. The thumb had dropped upon the palm of the hand—was cold and bloodless. The dorsum of the hand had also suffered much laceration, but the carpal bones were not injured. The wound of the soft parts and bone of the thumb were very rough, and apparently most unfavourable to union. We hesitated a moment whether to attempt the preservation of the member; but as the patient was a mechanic who would have been almost wholly disabled by the loss of the member, we soon determined to attempt its preservation, although entertaining but little hope of final success. We adapted the parts as accurately as possible, and closed the wound by four interrupted sutures, sustaining them with adhesive strips, lint, and a narrow roller.

While we were inserting the sutures, blood sprung from a wounded artery, and it became necessary to apply a ligature. On searching for the bleeding vessel, we were agreeably surprised to discover that the blood flowed from the member below the wound. It was, therefore, manifest that the digital artery, which courses along the inner border of the thumb just beneath the skin, was included in the integuments which had escaped injury.. This circumstance of course gave us new courage in regard to the preservation of the member.

On the fourth day, the dressings being foul with putrid blood and pus, we were obliged to change all except the adhesive strips, which we carefully left. We discovered no evidence of the death of the member, but, on the contrary, there was sensibility along the inner side of the thumb, and warmth in the whole organ. On the second day from this we repeated the dressing, and then removed the adhesive strips, using great care not to disturb the position of the thumb. It was now sufficiently manifest that vitality was preserved in the entire member, and that union was being effected at several points. The skin on the outer side, below the wound, showed an inflammatory blush, and when I pressed it gently with the point of a probe, I pressed the blood out of the vessels and rendered it pale; but on removing the instrument, the reflux of the blood was instantly seen.

The case has since been progressing favourably. Several small fragments of bone have been discharged; but complete union of the soft parts has been established. But little power of motion has yet been recovered, and it is probable that this will for ever remain in some degree defective.

Case of Wound of the Liver.—Some surgical writers incline to the belief that wounds of the liver are necessarily fatal, owing to the acrid quality of the secretions of the organ which, when the substance of the organ is wounded, must be poured, in greater or less quantity, into the cavity of the abdomen. The following case shows the fallacy of such a conclusion, and exhibits the symptoms which arise from such an injury.

In 1829, I was called in haste to Mr. Richardson, of Old Town, a tavern keeper, who a few minutes before had been stabbed by a maniac, beneath, and a little on the right, of the extremity of the ensiform extremity of the sternum. The instrument with which the injury had been inflicted, was a dagger made from a common table knife by grinding off the back and edge to an acute point. I was associated in the treatment of the case with my friend Professor Hall. The only examination of the wound which we deemed it prudent to make, was made by introducing a smooth probe into the orifice, and allowing it to penetrate (rather by its own weight than by any force) as far as it would pass. This was about two inches, and it was therefore manifest that, although Mr. R. was somewhat corpulent, the instrument must have penetrated the walls of the abdomen. But in regard to this, the symptoms which had resulted left no doubt in our minds. The patient's countenance was pallid and anxi-

ous—his breathing short and quick—he complained of great pain and sense of fulness and distension in the region of the wound—his pulse was a hundred and forty in the minute, frequent and small. We found him on his bed, but his trunk was supported, almost erect, by pillows, and he found it impossible to recline for a moment, without aggravated pain and difficulty of breathing. It should be remarked that, at the time of the infliction of the wound, the stomach was empty. Had it been otherwise, it is probable that the stomach, and not the liver, would have been the suffering organ. As it was, there was no vomiting or other sympton particularly affecting the stomach.

At the first moment of our arrival the patient was therefore in no condition for active treatment. Re-action, however, soon occurred in a degree to justify the use of the lancet, and blood was pretty freely taken. An anodyne had been previously administered. In the evening, we found our patient nearly in the same condition, and blood was again taken, and a fomentation applied to the external wound.

On the morning of the second day, other symptoms remaining as before, the skin had assumed very strongly the hue of jaundice, as had also the eyes. There was pain and tenderness in the region of the liver, and there was distressing pain in the right shoulder. Blood was again taken from the arm—a mild aperient prescribed, and the fomentation continued.

On the fourth day, the unpleasant symptoms began to yield, and our patient was soon restored to perfect health.

In this case, the wound having evidently penetrated the cavity of the abdomen, and the instrument being extremely keen, it must have inflicted injury upon some viscus, and the locality and direction of the wound, the stomach being empty and collapsed, would be nearly sufficient to shew that the organ reached must have been the liver. But the jaundice which followed, together with the characteristic pain in the shoulder, dispel all doubt in regard to the nature of the injury.

Effects of Strychnine locally applied in Paralysis.—Two years since, a seaman was received into the Baltimore Infirmary, labouring under paralysis of the exterior muscles of the left leg. He stated that, some days before, he had received a blow on the anterior part of the thigh, which had produced contusion and consequent soreness of the muscles. The immediate effects of the injury soon passed away, but there supervened an increasing sense of weakness in the member, which soon terminated in paralysis. The muscles on the anterior part of the thigh now felt soft, relaxed, and flabby. When the patient carefully kept the leg perfectly extended upon the thigh, he was able to bear his weight upon the member; but whenever he flexed it in the slightest degree, in attempting to walk, the leg was instantly doubled under him, and, if he trusted to it for support, he fell. When he was seated in a high chair, and the leg allowed to hang downward, he had no power to swing it forward.

This man had been labouring under some slight gastric disorder, which appropriate remedies had relieved. I could detect no evidence of spinal irritation. The local affection appeared to exist alone. Stimulating frictions were resorted to with but little effect. The cold douche was also tried with as little benefit. I then directed a small blister to be applied upon the anterior part of the thigh, near its middle. When vesication had been produced, the cuticle was removed, and one fourth of a grain of strychnine applied to the denuded surface. This was done in the evening. In the course of that night the patient was waked by involuntary spasmodic twitches of the diseased muscles, occurring at frequent intervals, and rendering it impossible for him to keep the limb quiet in bed. This continued at intervals during the night. In the morning, when the patient rose, he found, to his surprise, that he had now the power of extending the leg upon the thigh, and of securely standing and walking, although the member had not recovered all its natural power. On the following evening, I directed the application to be repeated. The same involuntary movements did not recur, but further improvement took place in the contractile power of the muscles. This improvement, without further resort to the remedy, continued to progress, and in a few days the natural strength of the member was perfectly restored.

The result of this case has induced me, in several cases of local palsy, to resort to the same remedy, but I have by no means been equally successful in such. In one case, however, of paralysis of the left arm and fore-arm, partial success was obtained. The same involuntary twitches of the muscles took place in this case, attended with some pain.

Little benefit can be expected from this remedy where organic lesion may be presumed to exist in either the brain or spinal cord. There are undoubtedly cases of paralysis in which, from morbid nutrition, the proximate cause of the disease is located in the muscular fibre, its vital quality of contractility being impaired. It has always appeared to me that pathologists far too generally overlook the susceptibilities of the muscular system. Through the nerves is conveyed the stimulus which excites the muscles to contraction; but in the latter organs there resides the important vital property which responds to the stimulus of the nerves. I believe that no intelligent

physiologist of the present day doubts the existence of a vis insita musculorum; and if the existence of such a quality in the muscles be admitted, diseases of the motive apparatus may certainly arise from one of two sources: either the stimulus conveyed by the nerves may be morbid or deficient, or the contractility of the muscles may be morbidly modified. This property of the muscles is bestowed upon these organs by the exercise of healthy nutrition, and if, in consequence of defective nutrition, the contractility of certain muscles ceases to be conferred upon them, paralysis will as certainly follow as if the nerve, which stimulates those muscles, had been divided. The nerves would stimulate as ineffectually a muscle deprived of its peculiar vital property, as they would cellular tissue, or a ligament. The strychnine in those cases in which it is successfully employed probably influences powerfully the contractility of the muscles, and undoubtedly was beneficial in the case which I have related, by aiding to restore that quality.

On the Inverted Toe-nail.—Although at first thought, this disease may appear to be one of trivial character, and although it is one which never threatens life, yet I know of but few which create a greater amount of suffering—so frequently does it occur, and so severe is the distress which it often occasions. I have, indeed, in some instances, known it to be attended with such extreme irritation as to seriously impair the general health; and I have known amputation to be improperly resorted to for its relief.

Those writers who have noticed this disease have uniformly described it as an actual inversion and growing downward of the margin of the toe-nail. Having noticed carefully, in my own person, the causes which produce the disease, and the mode of its production, I am satisfied that the commonly-received explanation is erroneous.

These diseases would never occur to those who wore neither boots, shoes, nor stockings. Indeed it never occurs to the negroes of this section of the country, who generally wear no shoes except during the winter season. The shoe or boot, then, (but sometimes the stocking) is the remote mechanical cause of it. The mode in which it operates is this: the shoe, being, as it usually is, too narrow to allow the anterior part of the foot to expand when it receives the weight of the body; or the heel of the shoe being so high as to cause the foot to be thrust forward into the narrow part of it, the toes are cramped and compressed upon each other. The great toe particularly, receiving the greatest pressure, is forced outward and against the second toe, and is made partly to mount upon it. The second toe, being smaller, presses not directly against the side of the large one, but partly under it, pushing the soft parts upward, and doubling them over the outer edge of the nail. A species of inflammatory hypertrophy takes place in the extremity of the toe, from the continued irritation of the nail; and the soft parts, which are thus reflected over its border, become more voluminous than natural. I have often thus seen it doubled quite over to the middle of the top of the nail. The end of the toe itself also becomes permanently swelled and expanded, and rises anterior to the angle of the nail. The pressure of the shoe on the top of the nail, no doubt assists in some degree the production of the disease.

Very rarely does the disease occur at the inner margin of the nail, as it certainly would as frequently do, if the common explanation of the production of the disease were correct. When it does there occur, I am confident that it arises from the soft parts being pressed upwards from below, and the nail being resisted above.

When the flesh is pressed upon the edge of the nail, ulceration will necessarily result, and pus is secreted. Occasionally blood flows. Redundant spongy and irritable granulations occur and increase the tumour of the parts, which rise above the margin of the nail, and give to it the appearance of having grown into the flesh, and of being deeply buried in it.

The elastic pressure of the stocking more frequently inflicts injury upon the toes than is generally supposed. The material is so soft and yielding, that few suspect the evils of tight stockings, as well as of tight shoes. The continued pressure of a substance as soft even as the texture of a stocking, is capable of greatly modifying the form of parts. I was not long since consulted in a case of dislocation of the lower jaw, in which the character of the injury not being recognized, no reduction had been effected. The displacement had existed nearly a year. Surgeons are aware how difficult it is for the patient, after dislocation of the jaw, to close the mouth, and retain the saliva, even when inflammation has passed away. Strong contraction of the lower part of the orbicularis is produced for this purpose, and almost continued pressure is made upon the lower incisor teeth. In this case, by the pressure thus made, the teeth, which before had been natural and strong, were thrown horizontally backward into the mouth.

Upon one occasion, when suffering in my own person from the irritation of the inverted toe-nail, I changed my shoes for those which were abundantly wide at the toe, but still I felt the same painful compression of the toes, when standing or walking. Further attention to the cause showed that it was the continued pressure of the elastic stocking.

For want of proper attention to the cause, as I believe, the surgeon is often long baffled in the treatment of this disease. So

often are the ordinary means defeated, that Dupuytren has recommended and practised an operation of great severity for its radical cure. He thrusts the blade of a pair of scissors beneath the anterior margin of the nail, near its centre, and carrying it parallel to the lateral border, reaches the root. He then divides the nail, and seizing the portion concerned in the disease with forceps, tears it away. This is said by the surgeon not to be particularly painful, but I think it will require more than the assurance of the operator to convince us that it is not agonizing. Such an operation will undoubtedly be effectual, but besides its cruelty, it impairs the integrity of the member. The toe-nail is by no means a superfluous appendage, and therefore it is desirable to preserve it.

In the treatment of this affection, let the surgeon first carefully consider the cause, and endeavour to effect its removal. This I have accomplished by interposing, between the toes, at their roots, a cylinder of soft, rolled linen—perhaps a third of an inch in diameter, or as large as may be necessary to keep the extremity of the toes from pressing upon each other. A shoe is to be worn which shall give abundant room for the toes to expand, but furnish snug support to the instep; for a shoe which is altogether loose upon the foot, will allow the toes to be pushed forward upon the toe of the shoe. The patient must also wear stockings which shall not, in the slightest degree, compress the toes. If the disease be not far advanced, the parts being relieved of the cause, will soon spontaneously assume their healthy condition. But if there be morbid granulations rising, in which the border of the nail is buried, and this last appears to be creating great irritation, it is necessary to gently raise the border of the nail by seizing the corresponding anterior angle with forceps, and then, with delicate scissors, the free lateral margin, which will be found macerated, white, soft, and brittle, should be cut away. To the granulations the nitrate of silver may be applied. The toe-nail should now be scraped thin upon its dorsum, and the patient should be directed every day to lift the border of the nail. I have found no advantage in thrusting anything under the nail to keep it raised, but have seen such substance cause much irritation.

In confirmation of the correctness of our pathology and treatment of this distressing affection, I may add that, when patients labouring under it are, by other diseases, confined to their beds, without wearing stockings, the disease invariably disappears, and does not recur until they have been for some time on their feet.—*North American Archives of Medical and Surgical Science.*

Reviews.

Remarks on the Theory and Treatment of Scarlet Fever, with a Notice of the Disease, as it prevailed epidemically at Bridlington, in 1831. By Humphry Sandwith, M.D. London: Highley. 1836.

This essay is peculiarly interesting at the present time, when scarlatina is so very prevalent and fatal. The author has likewise given an historical sketch of the disease in former years, which will be perused with advantage by junior medical practitioners. The opinion is too general that scarlatina is not a fatal disease; and we have heard practitioners of great experience make this declaration in our medical Societies; though we remembered the fatality of the epidemic forms of the malady, and that its mortality in schools is proverbial. It has fallen to our lot to observe three out of four, and even four out of five children of the same family lying dead at the same time, from this disease, and the remaining one very dangerously affected. Again, anasarca, or some other form of dropsy, has supervened a week or a month after convalescence, and destroyed life. We have much pleasure, therefore, in introducing Dr. Sandwith's essay to our practical readers, and we feel satisfied that they will not repent the time they may spend in its perusal.

"Adults, when exposed to the contagious miasm, are affected usually by sore throat only, without the rash. But besides numerous cases of this kind, at least ten perfect, some of them severe examples of the disease, fell under my own observation. Heberden relates, as a very unusual occurrence, that 'he had seen one man in it, who was four-and-thirty.' And Sir Gilbert Blane has remarked, that he never saw a person turned of forty affected by it. Of two of my patients, both men, one was just forty, and the other was fifty-nine. In the former, notwithstanding the repeated application of leeches, to the number of sixty, the throat sloughed. The latter case was not equally severe, although dropsy followed the attack. In both the rash was partial, but succeeded by desquamation of the cuticle.

"Infants at the breast, also, did not enjoy, as usual, an invariable exemption. In Dr. Mason Good's description of the worst form of *Rosalia paristhmitica*, he states 'death to ensue shortly after the seventh day; sometimes on the sixth.' But the Bridlington epidemic proved fatal, in many

instances, on the third, and even as early as the second day. A few died suffocated and apoplectic, within thirty-six hours from the first moment of attack, in defiance of every attempt to save them. These cases, in their cerebral and tracheal symptoms, and the rapidity of their destructive career, meet with a close parallel in the cases of death 'from drinking boiling water from the spout of a tea-kettle,' described by Dr. Marshall Hall and Mr. Stanley, in the twelfth volume of the Medico-Chirurgical Transactions. At the commencement of the epidemic, I have been assured by a most competent observer, that, in several instances, death occurred in twelve hours, without any attempt at reaction, to obviate the collapse, which supervened on the cold stage. Again, the disease usually presents itself, in its simple and anginose varieties, not only with strongly-marked distinctive characters, but also with a large proportion of cases of the milder description. But in the present instance, comparatively few cases occurred in childhood, which were not combined with intense sore throat, or inflammation of a more important part. Lastly, the first stage of the disease was, in general, brief, reaction and inflammation rapidly succeeding, and hastening the subsequent more dangerous phenomena.

"The occurrence of so severe an example of scarlet fever is agreeable to the analogy of all other epidemic maladies, as to their ever-varying range of mortality. *Rubeola*, for example, proved so fatal in London in 1807, as to hold blood-letting and every other remedy at defiance. And in the island of Tobago, in 1818-19, 'five hundred children fell victims to *pertussis*.' The writer, who has recorded this astounding fact, adds, 'the extreme fatality of the disease on this occasion, has given me as much uneasiness as surprise, as it is one considered, by most writers, as being milder in warm than in cold countries.' So far, indeed, from the severe epidemic *scarlatina*, which I am about to describe, being unique in its kind, it might be paralleled without any laborious research into the annals of medicine. To pass by the less accurate records of the sixteenth and seventeenth centuries, during which various severe epidemic forms of the malady are manifestly described as invading, by turn, every country in Europe, Dr. Willan mentions the irruption of a malignant scarlet fever at Paris, in 1743, which proved almost universally fatal, 'many patients dying of the sore throat in nine hours from the commencement of the fever.' Dr. Fothergill alludes to an epidemic scarlet fever at Bromley, near Bow, in Middlesex, in the winter of 1746, of so fatal a character, and one 'that seemed to yield to no remedies or applications, that several of the inhabitants were greatly alarmed by it, some losing the greater part of their children, after a few days' indisposition.' Equally fatal epidemics were observed and recorded by Dr. Lettsom, in 1793, by Dr. Sims, in 1798, and by Dr. Robert Jackson, at the commencement of the present century. The cases of scarlet fever in the private practice of Sir Gilbert Blane, from 1795 to 1806, had no minor degree of mortality, the deaths being ten in thirty-nine cases, or one in four. In Dr. Bateman's Reports on the Diseases of London, from 1804 to 1816, we find one exception, and but one, to as mild a form of the disease, probably, as that noticed by Sydenham. Traced through the reports of each successive year, it seldom even attained the severity which belonged to it in the autumn of 1808, when only one in thirty-six died. But the real exception to such uninterrupted freedom from danger occurs in Report xlv. And though the degree of mortality, which is not defined, fell very short, probably, of that we wish to parallel, it proves, at least, the main point—that the fatality varies in scarlet fever as certainly as in other epidemic fevers, dysentery, or spasmodic cholera. 'The scarlet fever,' he observes, 'was generally accompanied by a severe affection of the throat; which, in many cases, continued to harass the patient after the usual term of the fever had elapsed, and, in several children, appeared to be the principal cause of the fatality of the disease. The simple rash, which yields readily to the cool treatment with little medicine, was seldom seen during this epidemic; and the period when cold washing seemed to be essentially remedial, was soon over.' Dr. Hamilton tells us, that 'the mortality was great' in the epidemic *scarlatina* of Edinburgh in 1804. 'Dr. Lehman has published, in the twenty-second volume of Rust's Magazine, a memoir, in which he observes, that an epidemic *scarlatina* prevailed at Torgau, in 1825, of so violent a character, that one in eight of those afflicted with it died, and that thirty patients, all of tender age, fell victims to it.' Proofs of the occasional malignity of the disease might easily be multiplied; but these may suffice to correct any false impression, derived from the not less true, but opposite, accounts of its fatality, by Sydenham, Macgregor, Dr. Carbutt, Mr. Alcock, and others.

"The truth seems to be that, as Dr. Heberden has stated, 'this distemper is sometimes so slight as to require no remedies, and sometimes so violent as to admit of no relief;' or, in the more laconic language of Darwin, it differs in all degrees 'from a flea-bite to the plague.' For this description applies equally to the cases of any single epidemic, and to different epidemics as compared with each other. The authority of Dr. Cullen might be cited in illustration of the same view of the subject, if we assume

the identity of his *scarlatina anginosa* and *cynanche maligna*, when prevailing epidemically. In the former, the bad cases were 'not above one or two in a hundred;' while in the latter, 'the proportion was reversed, and these mild cases were not one-fifth of the whole, while the rest were of the putrid and malignant kind.' And of the epidemic *cynanche maligna*, which he has described, and which he states he had seen prevailing two or three times, he emphatically says, 'most of the instances terminate fatally.' We are in like manner told by Dr. Binns, that 'the children at Ackworth, in 1803, had, in general, the disease much more severely than those who had it there about eight years before.'

"The fact of this diversity in the character of epidemics is important, not merely as an object of curiosity in the annals of medicine, but as influencing treatment. It has been too much overlooked, however, by compilers of systems of medicine, which, embracing the ordinary forms of the disease only, leave the student unprepared to grapple with its worst varieties, and Sydenham's measures obviously bear no proportion to the demands of a severe epidemic. To what extent, indeed, a treatment founded on true pathology, and corresponding in activity with the severity of any given epidemic, would avail to lessen the ratio of its mortality, I am not prepared to say. My own experience favours the conclusion, that, with every allowance for the original malignity of the disease, its actual fatality is considerably under the control of art; for in proportion to the vigour of my remedies was my success. Truth, indeed, demands some qualification of this remark; and observation seems to warrant the assertion, that the disease, under certain circumstances, almost inevitably destroys life. Dr. Currie has recorded, as the result of his experience, that a form of the disease, which he thinks the epithet *purpurata* would designate better than *scarlatina*, and to which the cold affusion is inapplicable, is so irresistibly fatal, that 'all remedies have been equally unsuccessful;' and Dr. Sims, in summing up the inefficacy of every plan adopted in the London epidemic *scarlatina anginosa* of 1798, candidly avows, 'that from experience he can venture to recommend nothing, and that whatever means are used must be prompt and powerful.'"

When we reflect upon the evidence adduced of the fatality of scarlatina in the above quotation, and which is now too frequently corroborated by daily observation, we confess we place little reliance on the assertions of those who declare that they have never lost a patient affected with it. When it is said that in the greater number of cases but little medical treatment is required, we are convinced that those who hazard such an unfounded statement can have seen very little of the disease.

Our author's account of the epidemic of 1831 deserves much attention.

"1. The majority of cases manifested a high degree of fever, with more or less of delirium, and an intense inflammation of the fauces. With considerable irregularity in the developement of animal heat, however, in this, as in the severe epidemic described by Dr. Bateman, the period when cold washing promised to be 'remedial was soon over; but tepid ablutions were applicable throughout. Whether the brain was more or less implicated, the throat almost invariably ulcerated or sloughed, especially when local depletion was inadequately employed, or trusted to alone. In neglected cases of this kind, the extension of the inflammation, from the mucous membrane of the fauces to the excretory duct of the parotid and submaxillary glands, exasperated, doubtless, by the sympathetic irritation dependent on the rapid sloughing of the throat, produced excessive tumefaction of those glands and the surrounding cellular tissue, with consequent mechanical obstruction to the return of blood from the brain. A low fever, with delirium, sometimes slowly, sometimes rapidly, terminated their sufferings. In the latter stages, from the extension of the inflammation to the larynx, this variety was prone to lapse into the fourth, or that of bronchial inflammation. All were not attacked with equal severity, the symptoms being mild in a few instances.

"2. In some of the cases gastric irritation, from the extension of the inflammation of the fauces down the œsophagus to the stomach, greatly augmented the danger, by adding to the extent and importance of the inflamed surface of mucous membranes, interrupting the rash, rendering the operation of purgatives more precarious, and exasperating the irritation of the nervous system. Occasionally the whole alimentary canal seemed to participate in the affection of its upper portions. The fatal epidemic of 1793, from Dr. Lettsom's description of it, obviously corresponded closely with this variety. It differed, at the same time, from those described by Drs. Fothergill and Hamilton, because decided affections of the abdominal portions of the alimentary canal were comparatively rare in this epidemic.

"3. In several cases active delirium, or coma, set in at once, or within a few days, after a delusively mild appearance of the disease. In the former, the excitement ran extravagantly high, the patient singing and raving by turns, until signs of oppression supervened on those of exalted sensibility.

In the latter, there was involuntary evacuation of the fæces within a few hours of the attack. The eyes were ferrety in both, but muddier in the latter; in which, also, the skin was cooler, and the rash duskier. In one example, which partook of the characters of both these forms of cerebral disorder, there was extreme coldness of the extremities, with blueness of the fingers and lips; and petechiæ mingled with the eruption. Life was extinguished, in these cases, within two, three, or, at the most, four days after the development of the cerebral symptoms. The throat was sometimes severely inflamed; at other times the transition of the inflammation to the arachnoid membrane was almost complete. *Subsultus tendinum* occasionally appeared very early.

"4. In a still greater number of cases than those of the third variety, a marked bronchial inflammation, with consequent sensorial oppression, sometimes extinguished life with equal rapidity; in other instances, in which it came on later by an extension of the *cynanche tonsillaris* to the trachea, death ensued in a week or ten days. In this form of the disease, the rash was invariably interrupted, faded, assumed a copperish hue, or wholly disappeared. The pulse was quick and feeble; the skin, for the most part, cool; the tongue dry and glazed; and the whole system rapidly laid prostrate.

I also witnessed some clear examples of the disease, which arranged themselves under none of these varieties, but corresponded with the irregular congestive form described by Dr. Armstrong. The most striking features were, the cold stage, with repetitions of it so intense, as to resemble approaching collapse; occasional paroxysms of febrile heat, observing no periodical exacerbations; excessive irritation of the nervous system; the rash faintly emerging and disappearing, but never establishing itself; black and offensive stools; the throat but slightly inflamed; the pulse varying most remarkably in frequency; and the tongue furred with red papillæ, but always moist.

Our author concludes with a description of the sequelæ of the disease, in which we find nothing peculiarly novel or interesting; and then follows a narrative of cases with which we need not trouble our readers. The author has given ample proof in this paper, that he is an observant and judicious physician.

Flora Metropolitana; or, Botanical Rambles within Thirty Miles of London. Being the Results of Numerous Excursions made in 1833, 34, 35, furnishing a List of those Plants that have been found on the different Heaths, Woods, Commons, Hills, &c. surrounding the Metropolis (more particularly the Counties of Surrey and Kent), chiefly from actual Observation, and the Latest Authorities. Intended for the Student in Practical Botany; with a List of the Land and Fresh-water Shells of the Environs of London. By Daniel Cooper. 12mo., pp. 139. London: Highley. 1836.

THIS is a very useful and instructive manual for students preparing for examination at Apothecaries' Hall. The author divides the environs of London into districts, and gives the geological character of each. This is a most instructive little work to those for whom it is intended, and removes many difficulties which obstruct the way of metropolitan botanists in their herborizations. Every medical student and botanist ought to possess it.

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Elements of Medical Jurisprudence. By T. R. Beck, M.D., Professor of the Institutes of Medicine, and Lecturer on Medical Jurisprudence in the College of Physicians and Surgeons of New York, &c.; and J. B. Beck, M.D., Professor of Materia Medica and Medical Jurisprudence, New York; with the Notes of Dr. Dunlop and Dr. Darwall. 8vo., pp. 1010. London: Longman and Co. 1836.

Elements of Medical Jurisprudence. By Alfred S. Taylor, F.L.S., Lecturer on Medical Jurisprudence and Chemistry in Guy's Hospital. 8vo., vol. I. pp. 511. London: Deacon. 1836.

THE first of these works is a reprint from the last American edition, with the notes of the English editors, which too clearly shew their utter insignificance. There is no English editor, and the expense of his services are economically dispensed with.

The present edition differs in no way from the transatlantic impression, which may be purchased from the London agents at the same expense. Several of the chapters have been re-written, and others introduced, as on Life Insurance and Medical Evidence,

while the toxicological portion has been remodelled. The authors are eminently entitled to the highest praise for the laborious research which their compilation evinces, and their production is a monument of learning, industry, and talent. Every subject which it embraces is amply considered, and the work is one of reference and authority. It contains a vast collection of cases selected from all sources, and compiled with great ability and judgment. As a systematic compilation, it stands unequalled in our language. But though it is only a compilation, honest Roderick, the hack and puffer of Longman and Co., its publishers, does not find fault with it on this account, though, two successive weeks, he abused, in Billingsgate phraseology, another compilation which he sorrowfully admitted had pillaged its pages. This "trumpery, catchpenny," &c. &c., was published before Beck's work, and at nearly half the price, and on this account Roderick, "the honest and trustworthy critic," decried it. Thus, on March the 5th, a compilation published by Sherwood and Co. is all that is vile, but one published by Longman and Co. March 19th, is all that is super-excellent. Verily, Roderick, thou art not only "an honest and trustworthy critic," but a bookseller's puffer extraordinary into the bargain. The compilations of rivals are "worthless, trumpery, begged, borrowed, pillaged," &c., but those of thy employers were never equalled by mortals. What unparalleled and unblushing impudence for this hireling scribe to designate this bribed reviewing "honest and trustworthy!" His friend and sub. is concocting a work on the same subject, and of course his honest impartiality as a reviewer, did not bias so honourable a mind as his in abusing its predecessor. Quite impossible, when a physician of such high moral feeling, and the fabricator of the leading medical hebdomadal of London, save the mark! is the identical individual. Veracious, trustworthy critic, Mr. Taylor's work will be noticed by thee with gall; but thy bilious effusions are as potent as thy far-famed pilula micæ panis, which, like Morison's "Universal Vegetable Pills," was in thy hands a cure for all diseases. But we shall anticipate thee, potent and honest scribe, by stating, that the work of Mr. Taylor chiefly consists in a detail of recent British cases of forensic medicine, and will be found a very valuable addition to the medico-legal library. Being much more expensive than the trade publication, and emanating from an hospital, our Jupiter tonans will "damn it with faint praise," and reserve his brutum fulmen for the conflagration of other works of this kind, when they happen to clash as rivals with *our* edition of Beck's Jurisprudence.

DR. BLICKE ON RUPTURE OF THE UTERUS.

To the Editor of the London Medical and Surgical Journal.

SIR—I have to thank you for the insertion of my letter; one or two typographical errors have been made, but I do not think they are of much consequence, as the reader will easily perceive them; but I confess to you I am at considerable loss to understand the object of your remarks appended. I can only assume, that whilst satisfied my arguments are unanswerable (for if you could answer them you unquestionably would), you wish to support your own views by a weight of authority; for why you should repeat that which I admit at the commencement of my letter, and again towards the conclusion of my first paragraph, excepting for this purpose, I cannot conceive. Either my arguments on the point must be shown to be fallacious, or they must stand for the future the beacon of truth. One only approximation to an attempt to vitiate my argument is made in your first paragraph, and this, in real truth, is only a repetition of the assertion. You say, "that in most cases of rupture of the uterus, the woman exclaims, the moment of its occurrence, something has given way within her; she becomes faint almost instantaneously from the shock given to her nervous system, or from loss of blood from the edges of the uterine aperture. In such cases the uterus remains dilated until reaction returns, and even then perfect contraction of the injured organ is upon the whole of rare occurrence for some hours afterwards." Now, sir, from this you wish an inference to be drawn, that the uterus remains distended, but you do not shew me how the fœtus can be expelled without contraction of the organ. When you have done this, you will go a long way to confute my arguments as to the impossibility; but even then the woman must die of hæmorrhage. Just figure to yourself the uterus enclosed firmly in the cavity of the abdomen, whose parietes are always pressing

with a firm contact to all parts of it, and then ask yourself how the fœtus can escape out of the uterus without its contraction; if the uterus remains distended there would be no room, and if it did not contract and draw itself from surrounding the fœtus, I have yet to learn how the fœtus can escape or be wholly out of the uterus. Your proving, then, that the woman generally faints, proves nothing against my views, excepting this, that the muscular fibre would be, under this state of circumstance, more easily overcome at that moment; but I ask, admitting syncope to its fullest extent, would you attempt so formidable an operation till you had previously relieved the asphyxia? If you would, unquestionably admitting the possibility, the woman would die before you accomplished the delivery. In your fifth paragraph, I have really a right to complain of your remarks, because they are calculated to mislead the public. "You say, "Dr. B. would leave most cases for months, and the inference is years, and then advocate gastrotomy." I have done no such thing, and reference to my letter will prove I say a "few weeks;" and as to your advocacy of immediate gastrotomy, to save the life of the infant, I am sure no pathological inquiry or legal authority will support you. The life of the infant, if escaped, will only be extended to *a few minutes at most*, unless you are to suppose a diseased adhesion of the placenta to the uterus, which you could have no right to suppose, or power to ascertain, whilst the child lived. But, admitting for a moment you could save the life of the child, I say again, no pathological inquiry or legal authority would permit you to sacrifice the life of the woman, the necessary result of the Cæsarian section; or if you will not admit this result to the full extent, I assert it, you must do so, taken comparatively with the cases of recovery on leaving the case to nature. I must now also remind you how fallacious your inference is when you say for years; Sir E. Home shewed he had injected the arteries in an adventitious membrane in twenty-four hours, and therefore I have rather exceeded when I say weeks. The object, then, of this paragraph, can only be to excite the feelings of compassion on the sufferings of the woman, to suppress attention to my arguments for leaving the case to nature in the first instance. To your last paragraph I must refer you back again, to shew the validity of my present views, viz., that if the case be left to nature for a few weeks, an adventitious membrane will be formed, when gastrotomy may be performed without fear of peritoneal inflammation. I must now, Sir, endeavour to make reparation for an erroneous statement, in which you ought to join me, in consequence of your acquiescence in with regard to the opinion of one of the most learned and best obstetricians of the age in which he lived, the late Dr. Denman, who published (during the time I was abroad—the only apology I can offer for being unacquainted with it), a small pamphlet recanting the opinion he had previously maintained of the practice to be pursued in these cases. He says, page 18, "when the uterus is ruptured at the time of labour, both reason and experience shew that the patient has a better chance of recovering by resigning the case to the natural efforts of the constitution, than by any operation or interposition of art." Dr. Denman also asserts, that in all the cases where the child has been extracted, it has been apparently dead from the time of the rupture taking place, the placenta having been at the same moment separated. It is worthy of remark, also, that in this paper considerable scope is given for accounting for the mistaken views of practitioners, in believing that they have done what I contend is impossible, viz. that of reintroducing the fœtus into the uterus. Rupture of this organ was supposed to have existed by Denman in a case to which he was called by another able man, and which the post mortem examination of a Brodie proved unfounded. Another case is mentioned by Clarke, the present Sir Charles, where it was supposed rupture of the uterus had taken place, but it proved to be simply a rupture of the peritoneal coat, and Dr. Denman asserts no attempt was ever made to distinguish the two cases, rupture of the uterus and rupture of the vagina, till 1778, by Mr. Goldson.

Some points of my letter seem objectionable, i. e. give a possibility to your mind of inferring that I am at personal hostility with you—this, believe me, is not the case. I write for science and truth, not for victory, and beg of you to be assured I attribute no unworthy motive to you, but I know not how to make myself thoroughly understood, or sufficiently to keep the subject matter in view, without the statement I have made.

I am, Sir,
Your obedient servant,
W. F. Blicke.

[Our worthy correspondent is labouring under a mistake, when he supposes that it is to be inferred from our comments we consider his remarks personal—we assure him this is not the case. We differ from him in opinion on pathological and practical points, and we are satisfied to leave our experienced readers to judge for themselves. Our friend throws our numerous authorities over board, though in support of his own views he quotes others, and very few in number. He must admit the majority is with us and against him, and, had time permitted, we might adduce many others. We cannot

agree with him, that the uterus so fills the abdomen at the time of rupture, as to leave no room for the passage of the fœtus, because in the cases we have observed the rupture occurs after the discharge of the amniotic fluid, when the uterine tumour has considerably descended towards the pelvis. In reply to his other objection, as to the passage of the infant though the rent, in the absence of uterine action, we beg to inquire, would not the contraction of the abdominal muscles be sufficient to effect it?—Ed.]

SUPPRESSION OF QUACKERY.

To the Editor of the London Medical and Surgical Journal.

Sir—The question of the Suppression of Quackery has been brought before the public and the profession. There is considerable doubt in my mind, as to how far legislative enactments are advisable for the attainment of this object, for it is quite clear that in many instances quackery has owed its success mainly to the oppositions that have been thrown in its way. The generality of people have the folly to suppose, that the profession in opposing quackery studies its own interest alone, and quack medicines must do good because they are vilified by those whose dependence is on the medicine they prescribe and administer. These people, having run away with this absurd notion, become chivalrous in defence of a system which has destroyed more than the sword. It appears to me that legislative enactments for the suppression of empirical and dangerous practice, would be received much in the same light; and that they who otherwise would have thought little or nothing of the matter, would thus undertake the defence of what they would consider a "persecuted" cause. That the government should sanction the selling of patent medicines, as they are called, is most reprehensible; if ever there was "killing by license," it is in those instances where quack medicines have been the instruments by which murder was perpetrated. Can there be any farce so horribly ludicrous as that of the King's representative sitting to examine into the cause of the death of a person who has been slaughtered by an instrument under the "authority of his Majesty's letters patent?" This is an anomaly in our jurisprudence which requires the attention of our rulers.

The system of quackery has progressed much of late. Whatever may be said of the increasing intelligence of the people, one thing is quite clear, that in regard to medical matters they are profoundly ignorant. Let them remember, that the educated professional man opposes quackery, not because it injures him—how can it? "Bad surgeons," said the great John Hunter, "are like bad carpenters, they always make work for the good ones." So bad medicines must always increase disease. No; the reason for the opposition given to these proceedings by the enlightened profession of medicine, is honourable to the best feelings of human nature, it is the welfare and health of the people at large. Let him who says that the medical man hates quackery because it injures his purse, look behind the curtain into some of those scenes the physician and surgeon are called to, in which the victims of quackery are writhing under the tortures of disease produced by patent medicines, Let him study the hypochondriac, shattered in body and mind; the whole nervous system unstrung by devoting himself to medicines which his imagination had been worked on to suppose were infallible in the relief of disease, but which have brought him to that state in which hope seldom enters. Let him look on the distressed friends of the late young and blooming beauty, that has fallen into the snare of the spoiler; or let him visit the afflicted father who has sunk into a premature grave, the victim of quackery. These are scenes the medical man witnesses—are there no reasons then for his wishing, as a conscientious and enlightened human being, to overthrow the demon that produces such misery?

Your obedient servant, C.

ACTION OF TARTARIZED ANTIMONY.

To the Editor of the London Medical and Surgical Journal.

Sir—I perceive, in to-day's Medical and Surgical Journal, a reply to the observations which I made on Mr. Moses' "Explanation of the Action of Tartarized Antimony, on Physiological Principles." Permit me, Sir, through the medium of your valuable journal, again to make a few remarks, as some of those observations have evidently been misunderstood.

I cannot discover any passage, on referring to the observations which were made some time ago, that would warrant the inference that I entertained any doubt as to the injurious action of tartarized antimony. In fact, the very first extract from my observations which Mr. Moses has given, will prove that not the slightest doubt of the injurious action of tartarized antimony, in large doses, was entertained: "If tartarized antimony, being hurtful to the animal economy, excite vomiting," &c.—here there is an assertion quite opposed to doubt; indeed, long before Mr. Moses "asserted that in large doses it produces death, and in smaller very severe effects," and long before he had weighed these reasons together, and after mature deliberation had formed his "opinion that it is injurious," I was far from disbelieving its hurtful effects,

but was fully convinced of the violent toxical effects of this substance, of its exciting bloody vomiting, diarrhœa, burning pain at the pit of the stomach, colic, and a sense of tightness in the throat.

The whole amount of novel matter capable of being gleaned from the original communication*, is, that *vomiting is produced by tartarized antimony, because it is hurtful to the animal economy.* Now, I would ask, if an explanation, in which the sum and substance of it may be comprised in such two lines as these, be worthy of the term *physiological?* and whether the inference be not strictly correct, that if vomiting be caused by one pernicious substance, merely because of its pernicious qualities, it should consistently be caused by every other injurious substance? and, undoubtedly, a truly physiological explanation of the action of tartarized antimony, must embrace the action of vomiting, and the *modus operandi* of emetics.

I am very well aware that many, indeed most of the poisons, from the animal, vegetable, or mineral kingdoms, produce vomiting, and this very general effect of poisonous substances seems to have been the design of an ever provident Creator; it certainly would not be very physiological to give this as an explanation of the action of tartar emetic, or of any other substance as an emetic; yet this is what is done by Mr. Moses, when he says that vomiting is an effect of these substances, merely because they are hurtful to the animal economy, and that thus nature gets rid of them. Medical men, in cases of poisoning, have recourse to the stomach pump, which necessarily implies that vomiting is not invariably occasioned by pernicious substances, which in some cases may depend upon the oppressed condition of the brain and nervous system; but, in other cases, even this cause of immunity from vomiting is wanting; as I have said in the observations above referred to†, "several substances which are hurtful to the animal economy produce very intense effects upon the body, previous to death, even without causing vomiting." These effects may very gradually develop themselves from the slightest observable derangement, to death itself, without producing that expulsive effort (I find that I must vary my terms a little, since the term in general use is so very odious to Mr. M.); and yet that immunity may not arise from the oppression of the brain and nervous system. There are the following articles in the materia medica, camphor, humulus lupulus, belladonna, hyosciamus, datura stramonium, strychnia, conium, lactucarine, opium, and hydrocyanic acid, out of which, I dare say, Mr. Moses will be able to detect some which would generally cause a fatal termination, without causing their ejection, or even an attempt at ejection from the stomach and even in doses smaller than would cause death, or a very great oppression of the brain and nervous system, they would not produce any effort at ejection from the stomach. After all, perhaps it will be said that he had nothing to do with other poisonous substances than tartarized antimony; but I say that if you conclude that tartarized antimony produces vomiting because it is hurtful to the animal economy, which is the only thing that is new in the essay on its physiological action, then, reasoning analogically, it must necessarily be inferred that other pernicious substances should produce similar results, which I trust has been satisfactory shewn not to be the case; this was the only inducement for me to take up my pen in the first instance.

I am aware that the term *nature* is frequently used by physiologists and naturalists (in fact, the derivation of the term physiology, φυσις and λογος, and the term naturalist, imply the study of nature), and much more frequently, I believe, than is necessary. There are some sweeping expressions, such as "law of nature," "law of animal nature," "law of vegetable nature," to which I should suppose no very definite meaning is attached, frequently, by the persons who employ them; but in the investigation into the action of different substances upon the body, that explanation is not very physiological, which imputes the action of any substance to the design of the Creator, to *nature*, or to whatever similar unintelligible expression that may be used. At that rate, physiology would be but a very superficial science; the action of most substances, emetics, purgatives, diaphoretics, &c. could be easily dispensed with; there would be no necessity for studying the minute anatomy of the nervous, vascular, and other systems; and the labours of Le Gallois, Magendie, Prout, Wilson Philip, Thomson, Hall, and of many others, would be entirely superfluous.

I felt disappointed that Mr. Moses did not give his meaning of the term nature, as used in his first communication; I really am at a loss to give a precise interpretation to it myself.

Does Mr. Moses mean to say that poisonous articles introduced into the veins, or into the cavity of the pleura, are absorbed and carried *into the stomach*, and that they thus cause vomiting? It is very evident that comparatively little is known about the *modus agendi* of medicines; the discussion between Drs. Addison, Johnson, and Stewart, as given in the report of the meeting of the Westminster Medical Society, in to-day's Medical and Surgical Journal, verifies this observation

* See London Medical and Surgical Journal, No. 205.

† See London Medical and Surgical Journal, No. 210.

but it certainly is a novel view of the subject altogether, to explain the action of vomiting, after substances have been introduced into a vein, into the cavity of the pleura, into the muscular tissue, or into the anus, by the absorption and *removal of them to the stomach.*

An explanation of the action of tartarized antimony, on *sound* physiological principles, necessarily embraces, as I have before stated, the subject of vomiting, and the *modus operandi* of emetics—however little we may know of the modus operandi of any medicines—and this knowledge is not so extensive as it would be, were our real physiological information not so limited.

In conclusion, if the primary communication of Mr. Moses be analysed, it will be found to contain nothing *new*, but that tartarized antimony causes vomiting because it is hurtful to the animal economy; now, I contend that this is not a physiological explanation of its action; and this remains to be decided.

Mr. Moses can be informed too, why a fictitious signature is assumed in these letters; the writer thought the letter which he answered in the first instance, so exceedingly deficient in originality of physiological explanation, that he determined, for his own sake, upon only replying to it anonymously; nevertheless, that circumstance cannot prevent the advantages accruing from a free discussion of the subject.

MEDICUS.

London, March 19th, 1836.

The London Medical
AND
Surgical Journal.

Saturday, March 26th, 1836.

EXAMINERS OF THE METROPOLITAN UNIVERSITY.

ASPIRANTS to the office of Examiner in the projected University of London are now extremely numerous, and many are sending in their names and pretensions to the Chancellor of the Exchequer. Among these are persons of whom the Right Honourable Gentleman has never heard before, and at whose presumption in applying, his medical counsellors laugh very heartily. It may be as well to give some notice of the new University and its Examiners.

In the first place, London is to have such an institution; and men of all parties and political feelings admit, that it is as it ought to be. But the foundation of the intended University will be laid with no small difficulty. It will be rendered necessary to remove the rocks and quicksands which centuries have not done, the prejudices of Oxford and Cambridge, of the several Inns of Court, and of the Medical Corporations. We shall leave the government to effect this; and advert to the subject so far as it relates to our profession.

There are fourteen public, and six imperfect or private Medical Schools in London. The former have been created like the different Inns of Court, by the want of a Metropolitan University. Great expense and personal exertion have been incurred by their founders; and now the question arises, are they to be injured or suppressed by the new University? The present government is too liberal and enlightened to impede the progress of education; and too honest to allow the medical schools of the metropolis and this kingdom at large to be injured. It would be contrary to justice and the spirit of the age to abridge the legal rights or destroy the property of medical schools; nor was it ever intended to attempt it. But we really cannot forsee how the University, if it be a perfect one, (and it will be an anomaly if it be not), can be established without infringing on the rights, privileges and interests of our theological, legal, and medical institutions. Thus if the new University confer degrees in law, physic, and divinity, what will become of eating one's way to the bar at the Temple, Gray's Inn, or Lincoln's Inn; or of being heavily mulcted by the old Universities, the College of Physicians, College of Surgeons, or Society of Apothecaries; or of learning morality and theology at Oxford or Cambridge? If the Metropolitan University be a seminary of education (and if it be not, it will be a failure), it ought to supersede or include all the bodies just enumerated. We see no difficulty in its doing so, for we find an example af-

forded by the Universities of Oxford and Cambridge, which include many Colleges, another by that of France, the Metropolitan University, which comprehends all the Colleges in the whole country.

Leaving the government to incorporate the new institution as the members of it deem fit, we shall advert to its medical Examiners. How are these to be chosen? Are they to be Professors of the University, or elected from some of the schools, or from the profession in London? It would be manifestly unfair to select Professors of the University, should there be any, or from any particular Medical School, as this would be a great monopoly, and destructive to the interests of all rival establishments. It will be urged against this opinion, that competent Examiners ought to be teachers, and that private practitioners are unqualified for the office. Both these arguments are perfectly true, and indeed unanswerable.

Students now-a-days are so well informed, that most of the physicians in the highest public estimation, but who are not teachers, would be totally unqualified to examine in the recent improvements in science. To meet this difficulty it would be necessary, according to the existing condition of the profession, to make all the perfect Medical Schools branches of the University, and to elect by ballot, a month before the annual examination, a sufficient number of lecturers to act as Examiners. There is but an annual examination for conferring medical degrees in Edinburgh; and here is an excellent precedent. If it be urged against this plan, that it would delay many students who are ready for examination some months sooner than the academic period, the reply to this is, that deferring the examinations of such persons for six or twelve months, so far from being an evil is a positive good; because the present course of education in London is still too superficial and inadequate. But admitting that the examination ought to take place every quarter or month, then the Examiners ought to be chosen in the manner already mentioned, so that they should not possess exclusive monopoly as lecturers, which they otherwise would if appointed for life.

All monopoly would be prevented by selecting the Examiners or teachers one, two, three or four months before the stated time for examination; as in such cases students could not, according to the regulations of the College of Surgeons or Society of Apothecaries in London, enter exclusively to the lecturers whom chance would make Examiners. Nothing can be more unjust than the system enforced in the Universities of Dublin, Edinburgh, and Glasgow, of compelling all students for medical degress to attend and fee the professors in these institutions for their lectures, such individuals being the Examiners, to the exclusion of rival teachers, who are in general more talented, and even in the present state of things better attended by students, who must pay, but who attend as seldom as possible the instructions of their future Examiners. The certificates of all other lecturers are refused, though admitted by the respective Colleges of Surgeons and Societies of Apothecaries, and by the Army, Navy, and East India Boards. This species of fraud ought to be prevented in the intended Metropolitan University of the capital of England. Moreover, Oxford, Cambridge, and the London College of Physicians, have been compelled by the spirit of the times to admit all recognised lectures, with the proviso that candidates for examination have resided two years at a University. It is really too bad, that medical practitioners may be qualified for the Army, Navy, and our Colonial possessions, by the certificates of lecturers who are not University teachers, but that they cannot obtain the doctorate unless they fee or bribe those who confer it.

But suppose the preceding mode of electing examiners be objected to, let us examine what others remain to be adopted. These are two :—

1. The Examiners are to be chosen from the most distinguished anatomists, physiologists, therapeutists, chemists, botanists, and pharmacopolists, who are not lecturers, but who for the honour of the new appointment, and without any remuneration for loss of time, are expected to act for the love of medical science. Eight or ten Examiners would be necessary; and we do not believe there are half-a-dozen, or even half the number, of the class to which we allude, worthy of appointment. It is rumoured that each Examiner will receive from fifty to a hundred pounds a-year, and this to be paid by the examined, and that he must not be a lecturer. He must be of something more than—"passing rich with forty pounds a year," if he accept such a troublesome, unenviable an appointment, by which he must make ten enemies to one friend, provided he is competent and does his duty to the public and profession.

2. The College of Physicians claim to be Examiners, on the ground of not being teachers. This proposal appears at a first view very unobjectionable; but we shall prove it the most objectionable of all. The Examiners of that body are, in general, the most incompetent in the kingdom—they are either octogenarians or almost beardless youths, who know as much about modern medicine, and especially about scientific practice, as new born babes. They are chosen by interest and not on account of talent; we do not know the name of one of the present Examiners; but we are ready to wager ten to one, or 1000*l.* to 100*l.*, that we shall produce students of ours, now ready for examination, who if allowed to examine these Examiners, will stultify every one of them. Are these the men, then, to be Examiners in the New London University? This may appear strong language from a member of the body, or rather a licentiate, monopolically termed one of the *minus docti*, but one who joined it in accordance with the laws of his country, and for no other reasons. Nevertheless, if this body were reformed, and if its members or licentiates were admitted on equal terms with those who have received a worse medical education, (and who are, and they necessarily ought to be, with scarcely an exception, below par in public estimation), it would be the least objectionable source of medical Examiners for the Metropolitan University.

But it would be the grossest insult to the profession to appoint this body as Examiners, as now constituted. It may sneer at the present government, and boast of its court and aristocratic influence; but we are strongly disposed to conclude that it reckons without its host. The present ministry and parliament are not to be swayed by such a pigmy as this; and though it may indulge in sneers, we are so foolish as to opine, that unless it speedily sets its tottering house in order, it will be crumbled to the dust. Within this month we shewed that one of its most eminent supporters emphatically demanded justice for its members, and shewed the immense advantage of conciliation and justice, but his proposal was blackbeaned. This body has been playing the comedy of "All in the Wrong," for more than three centuries; and it can scarcely be expected it will now play All in the Right.

It has been the origin of all evils in the medical profession in the British dominions, or to speak classically —the *fons et origo malorum medicorum*. It never will, can, ought to be constituted a part of the intended national University, while in its present form.

THE FREE HOSPITAL.

A most impotent statement has been published by the newly elected committee of the Free Hospital, which, of course, denies all the charges of mismanagement by wholesale. These worthies have little idea of what is in store for them, and of what the public will have to judge in a few days. Our independent contemporaries have last week passed over the outrageous expulsion of Mr. Tweedie—the Lancet was silent in its leaders, and Roderick, to prove his immaculateness, has a few lines, which we extorted from him. What supporters of the profession! They deserve crowns of laurel.

SUPPRESSION OF QUACKERY.

Our contemporary, the honourable member for Finsbury, is, as we have already informed our readers, about to bring in a bill for the suppression of quackery, which for sundry reasons will fail, though it is possible, though exceedingly improbable, that it will pass into law. He will be opposed by numerous dunderheads in the House of Commons, who will declare that their lives have been saved by nostrums. One of the Collective Wisdom will declare that he has been cured by swallowing a dozen or a hundred of Morison's pills; another, that Reynold's tincture has removed his gout; and a third, perchance, that there is no such medicine under the sun, as Franks' Specific Solution of Copaiba.

A member of the government will next make a speech, in favour of the immense revenue derived from stamps on quack medicines and advertisements; and lastly, a radical will declaim against infringement of the liberty of the subject. Between all these enlightened patriots, we very much fear that the bill for the suppression of quackery will be burked, or, in modern phraseology, go to the wall. Time will prove whether our remarks are in point or not. We beg our readers to remember, that quackery is worth from one to two hundred thousand pounds a year as a tax, and this is not to be lost by any government.

LONDON MEDICAL SOCIETY.

DR. WHITING IN THE CHAIR.

Are the Teeth possessed of Vitality?

The question of the vitality or non-vitality of the teeth, has occupied the attention of the members during the last two meetings.

Mr. Bryant brought forward a specimen from Mr. Elliot's collection, in which anchylosis had taken place between the fangs of the dens sapientiæ and the neighbouring tooth. Now, if the teeth did not possess a vital power—a circulation—how could the fact illustrated by this specimen be explained.

Mr. Greville Jones knew two persons, one 70, the other 50 years of age, whose front teeth were shaved off to a fine edge, so as to shew their internal structure, the absorbing process seeming to commence at the anterior part of the tooth; it is evidently not the effect of attrition or caries; it could only be supposed the effect of absorption; one important vital function appears to be thus proved.

Mr. Merion considered the deposition of osseous matter between the fangs of the teeth, in Mr. Bryant's specimen, no proof of a circulating power in the teeth; bony matter might be deposited in such a position as well as in any other portion of the body.

Mr. Pilcher had seen in the collection of Mr. Bell, an abscess in the internal part of a tooth, the cavity being entirely surrounded by bony structure, and the other parts of the tooth entirely healthy.

Mr. Kingdon inquired of Mr. Merion why the spongy portion of a tooth exists at all, if it is not possessed with vital power? Nature never formed anything without a use; what, then, was the use of the spongy texture of a tooth?

Mr. Merion considered it was for the purpose of sensation; vitality might be supposed without circulation, as was instanced in the embryo of the seed, and the yolk of an egg.

Mr. Bryant inquired if it was not a fact that each tooth had its distinct periosteum connected by vessels, with the periosteum lining the alveolar sockets? Surely this would imply the existence of circulation in the tooth. The well known experiment of John Hunter, of placing a tooth in a cock's comb, and its there becoming organized, was another fact in proof.

Mr. Crisp thought the fact of the teeth remaining perfect in mollities ossium, might be considered favourable to the opinion of Mr. Merion.

Mr. Clifton believed it was the opinion of dentists of the present time, that internal caries of a tooth may and does take place; must not this arise from the process of absorption?

Some further discussion on the subject took place, in which Mr. Crisp inquired what was the best local application in toothach?

Mr. Cole considered a brisk purgative an infallible remedy in all cases of toothach.

The President had found the keeping of the carious tooth perfectly clean, and attending to the digestive apparatus, had always been effective in relieving such disease.

The Society then adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 19th, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Singular Case of Internal Hæmorrhage—Modus Agendi of Medicines.

Mr. Smith exhibited a preparation which he had taken lately from a patient, aged 53. For two month's previous to his death the gentleman from whom the specimen was removed, had suffered occasionally from severe palpitations of the heart, which becoming exceedingly distressing, he applied to a surgeon in his neighbourhood, who considered the affection purely functional, and depending on gastric irritation. He did not seem to experience much relief from the treatment employed, and he was recommended to come to town, which he did do, and placed himself under the care of two eminent physicians until the commencement of the present month. They seemed to consider there was some organic disease of the heart, and that there were symptoms of fluid in the chest. As he did not improve much, he determined on going home, about twenty miles in the country, and fixed the 7th of the present month for his journey. On the day before he was to go he passed a quantity of dark coloured pitch-like motions, which the medical attendants could not well account for, and recommended him to remain a short time longer in town; this he would not do, but determined on going the day he had fixed on. He went accompanied by a friend, and appeared to be better than usual, and his spirits much lighter, and he arrived in the afternoon. The friend who accompanied him called on him the following morning, found him apparently much better, and cheerful, and at his request was to proceed at once to town to inform his friends how well he had got home, and how comfortable he then was. This gentleman had scarcely left the room a quarter of an hour when the patient was seized with a gurgling in the throat, and he died in the course of a few minutes. The dark-coloured stools seemed to have afforded him much relief; he continued to excrete them till the day of his death. The case being one of an extraordinary kind, Mr. Smith went into the country with a friend, for the purpose of examining the body. There was about six or eight ounces of fluid on the left side of the chest, and as much as a pint on the right side. The heart was a little enlarged, but chiefly on the left side. There was slight ossification of the aorta, and the aortic valves. The small intestines were filled with a grumous dark-coloured blood; there was a collection of a somewhat simi'ar character in the large intestines, but it was partly digested, and had not the character of blood so strongly marked as that in the small ones. No evidence of the disease was observable in any portion of the intestines; but immediately external to the pyloric valve an ulcer was formed, in some degree broken up at its posterior part, to which a large vessel, the gastro-epiploica dextra, had become adherent. Three small openings had formed in the vessel. It was rather a singular circumstance that there should have only been one point of ulceration in the whole intestinal canal, and that that should communicate with a large vessel. He (Mr. Smith) believed that only two cases bearing any similarity to the present were on record; one was related by Dr. Copland, in which the ulceration had extended into one of the coronaria ventricular arteries. The other was an instance of such disease in the gastro-epiploica dextra as in the present case. It was rather singular the great benefit the patient in the case in question experienced from the blood-like evacuations, for he seemed to be improved in health and spirits after they had come on.

Dr. Johnson remarked, that it was evident the immediate cause of death was the last hæmorrhage which had taken place. There seemed to have been considerable difference of opinion as to the diagnosis during the life of the patient; some considering the affection to be dependent on gastric irritation, and some supposing it to be organic disease of the heart. Now there were certainly no *post mortem* appearance to indicate any serious affection of that organ; he was inclined to think that the palpitations were referrible to the great sympathy which existed between the pyloric extremity of the stomach and the heart; and the *post mortem* appearances bore evidence of such being the case. He had seen many instances in which there was great functional disorder of the heart, arising from sympathy with remote organs, and without any organic lesion of the heart. It was

strange in Mr. Smith's case there was no symptom during life that indicated the presence of the ulceration; he (Dr. J.) had seen instances in which ulcers had existed in the stomach for a considerable time, without any symptoms denoting their being present, until the ulceration penetrated the peritoneal coat, and the contents of the stomach escaped into the bowels.

Dr. Granville thought the most curious fact in this case, and in cases generally where patients have died from internal hæmorrhage, was the cessation of all the symptoms just before death, so as to make the person believe himself better. He thought no pathological reasoning could account for this circumstance.

Mr. King believed that in hæmorrhage, particularly when the blood was lost imperceptibly, as in the case related by Mr. Smith, there is a pleasant calmness comes over the person, as probably any one who had experienced epistaxis might testify. This might in some measure account for the pleasant feelings experienced by those a short time before they sunk from internal hæmorrhage.

The discussion on the *modus agendi* of medicines was resumed; in which Drs. Johnson, Addison, Granville, and Mr. Johnson took part. We have given an outline of the last debate on the subject in our last journal. Nothing further was elicited this evening, except that Dr. Addison acknowledged that he and Dr. Johnson did not differ so much in opinion as at first he thought they had, for Dr. Johnson believed that the first impression made by medicines was on the nervous system; and he (Dr. A.) never doubted that medicines might be carried into the blood. The question was: is it necessary that medicines or poisons be carried into the circulation, to produce their effects? He contended that it was not necessary. The Society then adjourned.

MEDICAL JURISPRUDENCE.

SPRING ASSIZES—NORTHERN CIRCUIT.

Before Mr. Baron Parke.

The following medico-legal investigation presents some interesting questions, to which we direct the consideration of our readers:—

THURSDAY, MARCH 10.

Trial on Charge of Murder.

George Gidley was put to the bar to take his trial upon an indictment charging him with having, on the 10th day of February last, in the parish of Harewood, in the West Riding, feloniously murdered one Michael Hurley.

Mr. Wortley, assisted by Mr. Neville, conducted the prosecution, and Mr. Baines the defence.

The learned counsel for the prosecution, after briefly stating an outline of the case to the jury, called the following witnesses:—

Joseph Keats deposed that he keeps an inn at Alwoodly-gates, near Harewood. On the morning of the 11th of February last, the dead body of a boy was brought there by a servant of a Mr. Pickersgill. It was placed in an outhouse called the mangling-room. It was dressed in sweep's clothes.

Hannah Hargrave examined.—I washed the dead body of the deceased. The skin was grazed off behind the ear and on the forehead, about the size of a sixpence. There was a mark across the left temple, very black, as if struck with a stick or heavy instrument. His arms very much bruised particularly the left arm. His back was very much bruised and swelled, as if struck with a thickish instrument of some kind, as a thick stick. There was a large mark below the navel; the skin seemed off, and the place very red, about an inch and a half long. He had a cut over his lips; they were very black; there was a little blood just in the nostrils; I thought it came from the eyes or forehead. It was after I had washed the body that I found these marks. There were bruises on the thighs and legs; on the whole body there were a great many; I can't say how many bruises.

Cross-examined by Mr. Baines.—I saw and washed the body about three o'clock in the afternoon in Mr. Keat's mangling chamber; it had been there all day; it was cold and there was no fire; I have dressed dead bodies which have been exposed to cold, but never saw the same effect produced as this body exhibited; the body was in a very dirty state; it did not look as if it had been washed lately.

Mr. James Ward is a surgeon at Leeds.—I examined the body of Michael Hurley, on Friday, the 20th of February; he appeared to be about twelve years of age. I examined him at the request of Mr. Hurst, of Chapeltown. It was in the outhouse—it had the been washed. He appeared to have been a fresh healthy-looking boy, full grown, and rather large of his age. I first examined the outward appearances. There was a bruise on the left shin, two inches in length; the skin was not broken, but blood was suffused deep down to the muscles of the leg. I observed two marks on the right side, and on the body, but on cutting into them I concluded they were not inflicted in the lifetime. There were similar marks on the back. Both hips were grazed—not much—as if he had been dragged on the ground; that was done before death. The outer side of the right eyeball was a little bloodshot; both lower eyelids a little ecchymosed; I cannot say what caused this blackness; a slight blow on the nose would cause it; I noticed a mark on the left temple; a bruise the

penetrated to the temporal muscle, of the size of a halfpenny; a moderate blow would be sufficient to cause it, I think. I noticed a very small mark on the forehead, which might have been done with the end of a stick; all the marks on the forehead left corresponding injected marks on the pericranium, as if slight inflammation had been going on; I thought they were made some days previous to death; if done two or three days before they would have been apparent. Soot might have hidden them. I removed the skull-cap; the skull was free from indentations and fractures. After reflecting back the dura mater I noticed the pia mater a good deal injected with blood. The arachnoid tunic was opaque from injection. On the front of the brain was a small spot of ulceration, sufficient to contain two or three drops of brown yellowish matter. I thought it had existed not less than three or four days before death. There was a mark upon the scalp corresponding with this ulcer. I attribute it to a blow received at some former period. On dissecting the brain, near the middle of the left hemisphere was a larger ulcer with ten or twelve drops of matter; it was sufficient to contain a split pea. I supposed it to have been of ten days' or a fortnight's standing before death. In the substance of the brain I found a great many bloody points, more than I thought was natural; I attribute them to inflammation. The lateral ventricles contained from one to two spoonsful of serum indicating inflammation; this is sometimes found in persons who die a natural death. I attribute the symptoms to inflammation. I then opened the body. The viscera of the stomach and bowels were perfectly healthy. The stomach contained a little green vegetable matter, as if he had been eating green leaves. It might be the green part of turnips. The bowels did not appear to contain any food. I was examined before the coroner on the same day. I examined the body again on the following Sunday; I noticed some bruises I had not seen before; one on the thigh, which might have been inflicted with a smart rap from a stick; a large bruise on the hip, with a good deal of coagulated blood penetrating to the bone; a large bruise on the right elbow, from a blow or a fall. These bruises were recent, and before death; two or three small bruises on the fore arm, and one on the knuckle of the fore finger, not very violent; that on the hip must, I think, have been done by repeated blows. There was also a large deep bruise on the left upper arm, five or six inches in length, occasioned by repeated violent blows; and a smaller bruise on the left fore arm. Might have been done while defending himself by lifting up his arm. A bruise on the left buttock, across the back, and another on the left side of the forehead. I noticed several scars from old wounds. I am of opinion that the boy was labouring under chronic inflammation of the brain, and that his death was accelerated by the blows he received shortly before his death, together with exposure to cold and want of food. On the second occasion I fetched Mr. Hey to assist me in the examination.

Cross-examined.—He first saw the body on Sunday the 14th. The body had not undergone putrefaction. Fatigue would exercise an important influence on a boy who had obstinately refused to take food. The same cause would convert the inflammation of the brain to an acute state. I think the breaking of the shin was occasioned by trailing him along the road. The blows which caused the ulcers on the brain were such as would probably have stunned the boy.

Re-examined.—I suppose pre-indisposition induced him to refuse his food. My second investigation was occasioned by Lord Harewood wishing to have a more exact examination. In the state the boy was, I think the violence accelerated his death, but not that the violence singly occasioned his death. Notwithstanding the violence, if he had not been in want of food and exposed to cold, I think, under favourable circumstances, he would have recovered.

William Hurst, a surgeon, at Chapel Town, near Leeds, examined the body with the last witness, on the 12th of February, and gave similar evidence, and expressed it as his decided opinion that the boy's death was accelerated by the violence; but that in the state the boy was, a small degree of violence would have produced that effect, and that he might have recovered of the violence used one or two days previous to death provided he had not received previous violence, and been exposed to cold, fatigue, and hunger that night.

Mr. W. Hey.—I examined the body on the 14th, in company with Mr. Ward. I think the ulcers on the brain were not so large as stated by him, but that the violence which must have been used to occasion the marks upon the body certainly accelerated the death.

Cross-examined.—I said, in my examination before the magistrates, that the immediate cause of death was the ill treatment, acting on a frame enfeebled by disease, excessive fatigue, and want of nourishment. Exposure to severe cold would materially contribute to the event. Recovery from the immediate violence only would have been highly probable. I did not examine the interior of the body.

Re-examined.—The marks on the shin, back-arm, and temple were caused by violent blows.

By a Juror.—I believe there was no indentation on the shin-bone.

The next witness was Ann Haigh, who

carried on the business of a chimney sweeper at Leeds: she stated that deceased was apprenticed to her four years, and was nearly 12 years old. The prisoner was her journeyman. The deceased had been away a fortnight, and when he went away he appeared well. He had not complained to witness.

Cross-examination: The boy was sulky, and had run away many times before; was of a very sulky temper. The prisoner was in her employ for five or six months and she never heard any thing bad of him.

Thomas Walson met prisoner 9th Feb. last, who declared he would give deceased a good hiding.

Richard Taylor, of Ripon, deposed that the boy came to him on the 3rd of February, was well, and had received no injury. On the 10th, he accompanied deceased and prisoner, who looked down in his countenance, a mile towards Leeds, which was then 26 miles distant. There was nothing to lead him to suppose that deceased could not have walked to Leeds in a day.

Cornelius Northorn saw the big sweep, the prisoner, kick the little one on his hind part, and the latter had his shoes in his hand. This was on February 10, and near the 8th mile stone from Ripon.

John Strut heard the boy cry out five or six times, "Oh, don't strike any more." The witness said, the blows sounded large.

Eight other witnesses deposed to various acts of violent assaults by the prisoner during the journey to Leeds.

William Dodsworth: I am a groom at Harewood-house. I was going to the house about ten minutes past nine, and met two sweeps by the coach-road-side. They came up to me. The man said, "A fine night, master; I'm going to Leeds; what o'clock is it?" I said, "Going to Leeds to-night?" He kicked the boy behind. The boy's arms were folded over his body, crying out, "Oh my belly" two or three times. I said, "You had better lead that boy by the hand; he will never be able to get to Leeds to-night, I'm certain." The man said, "Yes, ten times as far." He then attempted to kick, but overreached himself, and fell backwards. I said, "Hold up, old boy." He d—d my eyes, and said something else, I can't tell what. The boy seemed quite distressed, and could hardly get one leg before the other.

Cross-examined: The man appeared in liquor.

Anthony Clarkson, servant to Mr. Nebalm, o Beadle. On Tuesday forenoon I met the prisoner. I was going to Leeds. Coming back the next night, between 10 and 11 o'clock, as I was coming to the Iron-gates, I heard like a boy roar out very weak. He said, "Be merciful on me," or something that way. I walked up and saw the prisoner lifting the boy up. I siad "Are you going to kill that boy?" He said "he would do as much for me if he had me in his power." I believe I saw him punch the boy in the side. He had a little short stick then.

Charles Bevetty: I dined at Mr. Pickengill's, at Allwood by Gates. The prisoner called to me at two o'clock in the morning, and said he had a boy dead in the cowshed. I got up. I took a candle and lantern, and found the boy laid down quite straight. His shoes were half a yard from his head, and his cap in one of them. The prisoner said that the boy complained of being ill at the Iron-gate, and he had hugged (carried) him there to the cowshed. He said the boy did not come on to his wish, and he struck at him, He went reeling from one side the road to the other, and fell into the hedge-bottom, where he hit the boy twice or thrice. The boy said, "Oh, I am ill." Prisoner then took him to the cowshed and laid down beside him, and fell asleep. He awoke, and heard the boy moan. He then cuddled him in his arms, and fell asleep again. After awhile he awoke and said, "Come, Mick, let us be going;" but he received no answer, and on examining him he found the boy was dead. He immediately knocked loudly at the front door, and called them up, and told them what had happened.

William Scott confirmed the last witness, and assisted to take the body to Mr. Keat's, where he saw it was put into the mangling-room. It was quite stiff.

Thomas Wade found the broken stick which had been produced in a lane, near where the boy fell into the hedge, on the 18th of February.

On the case for the prosecution being closed, his Lordship put it to the jury to say if they thought it could be sustained as a case of murder. The jury replied in the negative, when his Lordship said they would then go on with it as a case of manslaughter.

The prisoner being called upon for his defence, asked to have his statement before the magistrates read, and which gave a full account of the transaction consistently with the evidence.

Mr. Baines then called Dr. Metcalfe, of Leeds, who thought that the death might be occasioned by the ulcers on the brain, and the cold and fatigue.

Several witnesses were also called, who gave the prisoner a very excellent character for humanity.

The Learned Judge carefully summed up the evidence, when the jury returned a verdict of manslaughter.

The Learned Judge said he should not pass sentence at present, but would consider of it.

The evidence of the medical witnesses reflect the greatest credit on them as scientific, experienced, and judicious surgeons. We cannot, however, agree in one opinion with Mr. Hey, that "recovery from the imme-

diate violence only would have been highly probable." We are most willing to believe that the reporter must have misunderstood the witness on this point; because Mr. Hey is one of our first provincial surgeons, and could not for a moment arrive at such a conclusion, if he had heard the whole of the evidence. Thus it was proved that a boy of 12 years of age, labouring under ulceration of the brain, had during a whole day, and during a journey of 27 miles, been repeatedly kicked, and struck by an adult, with a heavy bludgeon on different parts of the body. In our opinion (we may be in error, but like Mr. Hey, we are entitled to an opinion), the boy received as much injury, according to the evidence, that, even had he been in perfect health, was more than sufficient, under all the circumstances, not only to kill him, but half a dozen of his age.

It was evident from the testimony of Taylor, that the boy was dejected on the road to Leeds; and the inference is clear in our mind, that Mr. Haigh's journeyman, the prisoner, had ill-used him before, and was most probably the cause of the ulceration of his brain.

But what are we to think of Dr. Metcalfe's evidence, which went to prove that the boy died in consequence of the ulcers of the brain, and the cold and fatigue. The witness Taylor proved the boy was well on the 9th of February, and if he had not been exposed to cold and fatigue, might have remained so to this hour, according to this witness. But we are utterly at a loss to understand how Dr. M. made no mention of the savage maltreatment the boy received, or of its effects on life at so early a period of existence.

With respect to the ulceration of the brain, it may be possible, but we have never read or heard of, or met with such a case, that it came on in so young a subject in the course of twenty-four hours; but after all, it was so slight, had no injuries been inflicted, that by proper treatment it might be cured without difficulty.

It is not stated what sentence was passed on the manslaughterer; he richly deserved transportation for life, and to undergo the hardest labour; though we very much doubt that such a punishment was awarded. We say this, because a Mr. Justice Parke, who tried St. John Long for the murder of Miss Cashin, at the Old Bailey, designated the prisoner at the bar for felony, "a poor *gentleman*;" and an equally humane enforcer of justice, perhaps the same, may have presided at the above trial.

We should not offer a single observation against the prisoner, were it not certain that at the time we write, March 26th, the sentence of the law has been pronounced against him.

It is clear to us that the convicted manslaughterer was a low, savage, cruel scoundrel, excited by liquor, who would think no more of killing a human being, when partly inebriated, than a sparrow. He was of the fraternity of chimney sweepers, and this trial has led us to notice it on the grounds of humanity, and in defence of the most unfortunate and destitute children apprenticed to the trade of such wretches as the above-named barbarian.

That there are many worthy persons as chimney sweepers, we admit; but that many of the trade treat children of tender age with horrid cruelty, has been too amply proved before the House of Commons.

Case of Rupture of the Uterus. By A. Dunan of Baltimore.

I was called, on the 17th of March, at six o'clock, P.M., to visit Mrs. H. R., aged 38, whom I found affected with slight labour pains. As there was no prospect of delivery being accomplished immediately, I prescribed an anodyne, and visited her again at ten o'clock.

The pains had increased, and were now very strong. On examination the os tincæ was found well dilated; there was a natural presentation of the head of the child, and every thing seemed to afford a prospect of speedy delivery. About twelve o'clock at night, a sudden cessation of pain took place, attended with rumbling noise in the abdomen. I proceeded immediately to make an examination per vaginam, and was astonished to find a disappearance of the fœtus. Suspecting that rupture of the uterus had taken place, I made an effort to introduce my hand, with the object of searching for the fœt, but found the os tincæ so firmly contracted, with a margin of the placenta presenting, that I could not succeed. Mrs. R. continued to experience aching pain in the region of the uterus, until the 19th, at four P.M., when she expired.

Sectio Cadaveris.—When the cavity of the abdomen was laid open, a rupture was found occupying the right wall of the uterus, about an inch and a half or two inches above the os tincæ. The child had passed through the rent, and was found lying with its head towards the left abdominal wall of the mother, and its breech towards the right side. The wall of the uterus, on the right side, was much thinned, while the fundus, and the left side were thickened—the whole being in a diseased condition, which had probably existed for some time. The os tincæ was flaccid and rugged, and was likewise in a morbid state.

Mrs. R. had been the mother of four children, all of which were born dead, and on the occasion of the last accouchment preceding the one which terminated fatally, I found the uterus thickened upon one side, and apparently diseased.—*North American Archives of Medical and Surgical Science.*

THE

London Medical and Surgical Journal.

No. 10. SATURDAY, APRIL 2. Vol. I.—(1836).

CLINICAL LECTURE
ON
RHEUMATISM.
BY PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Cases of Rheumatism—Cases in which Mercury to Salivation is necessary—Sympathy between the Liver and Kidneys—Proportion of Rosacic Acid deposited in the Urine after the administration of Colchicum—Practice of giving Mercury in Acute Rheumatism is modern—Menyanthes Trifoliata and Calamus Aromaticus.

Gentlemen—I shall direct your attention to two or three cases of acute rheumatism, in which I considered it necessary to administer preparations of mercury in order to affect the system.

George Shakleford, æt. 54, admitted Dec. 22nd, 1835, carman, is a tall, strong man, with a very florid complexion; moderate habits; owing to the nature of his business, he is much exposed to cold and wet; has in general enjoyed good health, with the exception of having had rheumatism three or four times.

Ten days ago the joints of his little finger became very painful, and subsequently he experienced pain in his elbows, shoulders, and knees, which he found was increased by warmth, and when in bed. It has gradually become worse up to the present time, and is now so bad as to incapacitate him for exercise. He also complains of slight cough, attended by expectoration of frothy mucus. Bowels open; tongue coated with a white fur; urine scanty and very high-coloured, depositing a copious pink-coloured sediment; pulse 98 and full; copious perspiration.

Dec. 23rd. He was bled to twelve ounces, and the following medicine ordered:—

℞. Hydr. submur., gr. ij;
P. opii, gr. iss. Sumend. statim post V. S.

℞. Hydr. submur., gr. ss;
Antimonii tartarizati, gr. ¼;
Extracti conii, gr. iss, 4ta quaque hora sumend.

This was followed by an opening draught.

28th. The pains are somewhat relieved. His mouth is rather sore; he was again bled to twelve ounces, and the tartarized antimony was increased to half grain doses. A draught, with two minims of the hydrocyanic acid and a scruple of carbonate of potash in water was given every four hours after the pill.

30th. Continues improving; urine not quite so high-coloured; pulse 80; he was not bled to more than an ounce, owing to his fainting. The carbonate of potash was increased to half a drachm in the dose, and he was allowed two pints of milk daily.

Jan. 1st. Pains much relieved; pulse 80, and natural. As he did not sleep well at nights, half a grain of the muriate of morphia in an ounce of water was given at bed-time.

6th. Pains relieved; mouth sore; his urine is still high-coloured, and deposits more sediment to-day than it has since the 1st. The pill to be taken every eight hours, and two minims of hydrocyanic acid, twenty minims of liquor potassæ in an ounce of water in the interval between each dose of the pills. He was allowed rice and beef-tea daily.

8th. Improving since last report; the pills to be taken every six hours.

14th. Is now quite free from pain; pulse 75, and natural; the pill every nine hours; a mutton chop every other day.

22nd. Complains of severe rheumatic pains in the left hand and arm; the urine deposits a large quantity of pink-coloured sediment; pulse 96, and full; the calomel and antimony pills, and the hydrocyanic acid mixture were repeated.

25th. The pains are a little relieved; the urine does not deposit so much rosacic acid; his nates are sore from lying in the same position so long; the nitrate of silver was applied to the affected parts, and half a grain of the muriate of morphia was given every night. A pint of beef-tea daily.

29th. His mouth is very sore, but the pains are much relieved.

Feb. 3rd. Considerably improved; the urine, although high-coloured, does not deposit any sediment.

5th. Complains of slight pain in the left hand.

℞. Sodæ carbon., gr. x;
Vin. colchici, *m* x;
Infusi quassiæ, ℥ j, ter in die sumend.

8th. Slight pain in the left hand still continues; increase the colchicum to fifteen minims.

15th. Improving; is quite free from pain, but is very weak. The infusion of cinchona was substituted for the quassiæ in the draught. He continued to improve until the 25th, on which day he left the hospital, quite well.

— Stewart, æt. 33, was admitted Jan. 28, 1836. He is a carver, of exceedingly dark complexion; regular habits; has in general enjoyed very good health, with the exception of a severe attack of rheumatism which he had four years ago.

About five weeks since, owing to his having worked in a cold damp room, he was seized with a severe pain in the feet and legs, gradually extending up to the right arm. The pain did not appear to be increased or diminished by warmth. These symptoms have gradually increased in severity up to the present time, as he took no medical advice. He complains of severe flying pains in the feet, legs, and right arm, which almost prevent him from moving: they are not increased or lessened by warmth, and by being in bed. Pulse 118, and rather full; tongue moist, but coated by a thick white fur; urine high-coloured, but it does not deposit any sediment; bowels costive; he perspires profusely, particularly at night. He was bled to twelve ounces, and five grains of calomel given every four hours. Ten grains of Dover's powder at bedtime. He was placed on low diet.

29th. The mouth is already tender, and the breath has a mercurial fœtor. The blood was slightly buffed and cupped; the pains are a little relieved. To have one grain of calomel, and three of James' powder every four hours, and half a grain of muriate of morphia at bedtime.

Feb. 1st. The pain is much relieved, but the mouth is very sore; bowels very open. Half a grain of opium was added to each pill.

5th. His mouth is very sore. On the 8th the medicine was omitted, and a gargle of chloride of soda given for the mouth.

10th. Is quite free from pain; the mouth s still very sore.

13th. Complains of restless nights, owing to his shoulders being rather painful. Pulse 120, but not full; his urine is very high-coloured, and now deposits a copious sediment.

15th. Much improved. Three ounces of the decoction of bark to be taken three times daily.

20th. Able to leave the hospital.

The female, on whose case I offered a few observations in a previous lecture*, referring to the metastasis to the heart, which had occurred in her case, has since been affected by the calomel, which I considered necessary from the obstinacy of the affection under which she was labouring; she is now convalescent, and I will proceed to detain you for a few minutes in considering those cases in which I think calomel, carried to moderate salivation, necessary.

Among the numerous cases of acute rheumatism, gentlemen, that have yielded to the usual plan of treatment which I pursue in that disease, namely, bleeding, purging, tartar emetic, and, after the pains and excitement have abated, or return periodically, the administration of the decoction of the yellow bark, or the sulphate of quinia, three have withstood this method of management, and have required the influence of calomel carried to salivation. Now, let us inquire what is the cause of this.

In every instance of acute rheumatism, where a spontaneous cure does not occur when the disease is left—there are two distinct conditions of inflammatory action attending the disease, namely, one which may be said to constitute the disease, at least is primary, which somewhat resembles the inflammation of gout, passing from joint to joint, subsiding very suddenly in one place, and as suddenly occurring in another, and generally yielding to venesection, followed by a large dose of calomel and opium, with the subsequent administration of tartar emetic in large doses—at least large doses for this country—for example, gr. j to gr. iss, repeated every third hour. This primary inflammation, when it does not yield to these measures, is succeeded by another, which more closely resembles articular inflammation arising from ordinary causes, is less transient than the primary variety, and seems to affect the fasciæ and sheaths of muscles, and the periosteum more particularly than other parts. It is attended, not by flying and shifting pains, but by more fixed pain, yet of a more acute description than occurs in chronic rheumatism; generally much augmented at night, but not accompanied by much perspiration. One striking feature of it is the high colour of the urine, the copious deposit of the rosacic acid, and the highly cupped condition of the blood. If this condition only occurred in plethoric people, in whom the capillary sys-

* See London Med. and Surg. Journal, No. 6, (1836), p. 162.—*Rep.*

tem is always congested, or a condition of general hyperæmia is present, we could explain it; but this is not the case. In the three cases which have been read, the female only is of this habit, but the males are not: one is of a spare, highly irritable habit, and of a sanguine temperament; the other thin, pale, and completely of the melancholic temperament. In neither of the latter was there any abundance of the circulating fluid, although in Shakleford the inflammatory condition was most general, and the extent of it over the mucous surface evident, as well as its character very acute. The tongue was of a deep red colour and swollen; and the deposition from the urine so great, that a large supply of rosacic acid was daily collected from it for some time.

Now, I have always observed, that in cases in which this acid is copiously secreted the liver is always more or less affected, and that the kidneys respond to the chronic inflammation proceeding in that organ.

The sympathy between the liver and the kidneys was beautifully illustrated by an experiment of MM. Dumas and Prevost*. They extracted both kidneys from a dog, and, after the death of the animal, they found the liver highly inflamed, and the gall bladder filled with dark, brownish-green bile. It is also demonstrated by the influence of colchicum, when administered in full purging doses, for some time. Chelin found, that on the three first days after giving wine of colchicum, the proportion of the acid was as . . 0.069
4th day . . 0 076
8th day . . 0.091
12th day . . 0.112

This seems to depend on the stimulant influence of the colchicum on the orifices of the gall duct, extending to the whole biliary ducts of the organ, and setting up a temporary inflammatory action there, and the respondence of the kidney in the separation or formation of the rosacic acid.

Now, it is in such cases that this secondary inflammatory condition chiefly occurs, and it will yield to nothing but a mercurial course carried to moderate salivation, but made subsidiary, also, to bleeding and purging.

The ancients, even Sydenham, did not employ mercury in acute rheumatism; the practice is altogether of modern origin, and originated in its powerful and evident salutary influence in hepatitis; and it is chiefly, in my opinion, by its influence on the hepatic organ that much of its curative power in this secondary stage of acute rheumatism depends. It is true that it has been found almost equally useful in the primary stage, in large doses combined with opium, namely, six grains of calomel and two grains of opium, after full bleedings; but my own experience leads me to prefer the tartar emetic in the early stage of the disease, after the large doses of calomel and opium and full purging. Indeed no fact is better established than the power of calomel to subdue inflammation in deep-seated and in glandular organs; and it is upon this influence that it proves beneficial in the cases of acute rheumatism that pass into the second state.

I have sometimes, as in the case of the female, Carn, ordered colchicum at the same time, but it is by no means essential, and does not seem materially to aid the cure.

In the case of Shakleford, the mercury was not carried to an extent capable of exciting a great action on the salivary glands; nor is this necessary—but it should be decisive, and as soon as it is fully displayed, then the dose of the remedy should be diminished, or the intervals between its administration lengthened; but should it go to a considerable extent, and much salivation be induced, the use of the mercury must then be discontinued altogether. In those persons in whom the mercurial action is attended with great augmented irritability of the nervous system, the remedy should never be prescribed, unless after a course of active depletion by the lancet, and purging. It is an erroneous opinion, that purging interferes with the action of mercury: the contrary is well illustrated in ascites, treated with elaterium and calomel, and which you have seen in several cases in this hospital.

The convalescence is best treated with decoction of yellow bark; for it is a fact that is not of easy explanation, that sulphate of quinia does not answer very well in such cases: it seems to excite too much the mucous surface, and to bring on inflammatory gastric dyspepsia.

When local pains still remain in a small degree, these generally depend on some deposition in the membranes, and are to be removed by friction, percussion, and the combination of diaphoretic tonics and aromatics; and I have found none so serviceable as the infusion of the menyanthes trifoliata and calamus aromaticus. The powder of the root of the latter plant is used in Sussex for the cure of agues: Dr. Baillie says, "I have known some cases of ague cured by it. I was induced to add it to the bark when, from the intermittent character of the pains, I found that remedy useful, and certainly the disease was sooner cured than by the bark given alone." Since this observation was made, I have employed it in a great number of cases, and I can bear testimony to its efficacy in this form of the disease.

I would wish, at my next lecture, to direct your attention, gentlemen, to a case of paraplegia, at the present time in the

* Journ. of Science and Literature, Vol. xvi, p. 121.

hospital. The man is taking strychnia, and is very greatly improving.

Errata.—In 2nd column, line 3, page 259, *for* salve *read* salvo; line 9, *for* sanied *read* sanies. In the lecture on Typhus Fever, instead of dying in, it should have been stated that the patient was examined after death, in the presence of Drs. Thomson and Carswell.

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,
BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE III.

We are now to proceed in a general view of the organs which contain, and the vessels which circulate blood.

The blood-vessels are divided into arteries and veins. The first are the adducent, the second the refluent order of vessels. The former carry the blood from the heart to the several parts of the body; the second return it from these parts to the heart. The great trunk, or, rather, the origin of the arterial system, is from that cavity of the heart which is commonly called the left ventricle, more properly, as will afterwards be shown, the systemic ventricle of the organ; while the great trunk, or rather terminating vessel of the venous system, is into the right, anterior, or, strictly speaking, the pulmonic auricle. The first vessel is named the aorta: the second, the venæ cavæ—or, as there are two of them, one from the head and parts adjacent, denominated cava superior; the other from the viscera and extremities, the cava inferior. We speak of the venæ cavæ, so do we also of the aorta ascendens, and aorta descendens.

Arteries and veins differ from each other in several very important particulars, both of structure and distribution; these it will be expedient to recollect.

In the first place, an artery always, when cut across, retains its circular form, while the sides of a vein thus treated, collapse, and so obliterate the cavity. In the next place, the course of arteries through the body is different from that of the veins, their larger ramifications being, for the most part, much more deep-seated, and placed as far as possible beyond the reach of danger. We find them, for example, in the canals and grooves of bones, and in other situations where accidents are less likely to happen to them. The final cause of this arrangement is sufficiently obvious, for injuries to these vessels would be productive of much more formidable mischief, than to the veins of the same calibre; they have also more elasticity in their organization than have veins, and they are, moreover, without those valves which, in the venous system, are so necessary to guard against a regurgitation of blood, which cannot have place in the regular course of arterial movements.

Arteries are furnished with three coats; the first cellular, the second fibrous, and the third, more properly speaking, membranous. This membranous, or internal tunic, is compact, smooth, and firm, and is so constructed as to prevent the exudation of blood through its interstices.

Some physiologists, indeed, tell us that the artery is nothing beyond a tube of cellular tissue, and that the fibrous and membranous tunics are not, properly speaking, existent. This simplicity of structure is, however, rather assumed for theoretical purposes, than actually shown; and, with all my wish to simplify, I cannot agree with their positions.

Respecting what is called the terminations of these vessels, there obtains also some difference of sentiment among physiologists, some averring that they have properly but one termination, namely, that into veins by the medium of the capillary or small ramifications—the arterial portion of these ending where the venous commences—while others tell us that they terminate upon surfaces, external and internal—being then the means of porous exudations—also into glandular structure, in which case we have a more complicated process of exudation—and further, into cells or membranous surfaces from which corresponding branches of veins arise—then again, their extremities pierce larger branches, constituting the *vasa vasorum*, and finally, anastomosis, from *ava* and *ςομα*, is received by some anatomists as an example of arterial termination, which, however, is rather a communication and interchange than termination, and as such ought to be described.

On the propriety or impropriety of considering superficial, membranous, and cellular terminations of the arterial tube, I shall afterwards briefly animadvert. I may here, however, remark on the very beautiful provision of nature presented to us by the circumstance of anastomosis or communication against the effects which would otherwise follow the obliteration of any considerable vessel. It has even been conjectured that the aorta, or large supplying artery of the body, might be obliterated, and the circulation nevertheless maintained by the anastamosing branches above the ligature. Sir Astley Cooper, wishing to ascertain how far this might be the case, tried the experiment on dogs, and he has published the following account of one of these experiments:—"It is now," he says,

"more than two years ago that I opened the abdomen by an incision of about three inches and a half close to its junction with the loins, and, turning aside the peritonæum with my finger, I felt the aorta pulsating, and passing a blunt hook under it, easily put a ligature round it." The experimenter then goes on to state that the animal survived the experiment, and to describe the appearances which were found by dissection upon the animal being killed. He says that the anastomosing vessels were beautifully seen, and notwithstanding the channel to the femoral vessels was thus blocked up, these vessels were sufficiently large and numerous to allow of a free injection.

It was on this principle of communicating branches coming to supply the original trunks, that Mr. Abernethy conceived, and successfully executed, the bold operation of taking up the artery in iliac aneurism, and Sir A. Cooper since did the same thing even on the aorta, conceiving himself (as he was) justified in performing an operation under the bare possibility of success—the patient being a certain victim to the disorder without it; and Dr. Parry has published some beautiful experiments on animals, in which actually new trunks were gradually formed to compensate the obliteration of the old ones; and I make more especial allusion to these facts and principles than may seem consistent with the nature of my course, both because they are of themselves highly interesting, even in a pathological point of view, and because they seem to throw considerable light upon the question immediately to be agitated—viz. whether, and to what extent, is the action of the arteries independent of the heart?

Veins.—These originate by capillary tubes joining the capillary of the arterial system. They have thinner and more translucent tunics than have the arteries, and throughout their course they are supplied with valves, or thin inelastic membranes attached to their inner coats, for the purpose of preventing the reflux of blood. Of the veins there are two orders—one superficial, the other deep-seated—the second have, for the most part, accompanying and corresponding arteries.

I have already stated that the heart is the organ which transmits the arterial, and receives the venous trunks. This organ will afterwards be more particularly described when we shall be considering the morbid circumstances to which it is incident; at present I am called upon to investigate by virtue of what influence the reception and transmission are brought about—in other words, to make some remarks on the circulation.

Circulation of the Blood.—I need not announce to you, gentlemen, that Dr. Harvey of London was the great discoverer of this all-important fact. He supposed the whole projecting force to reside in the heart, an opinion which has been advocated by a great many of his successors, while others have been rather inclined to attribute to the arteries themselves something like a similar power to that of the heart in effecting the circulating round.

While speaking of arterial structure, you will recollect I mentioned that one of the tunics or coats of these vessels is, in the opinion of most physiologists, of a fibrous nature; this fibrous structure is further imagined to argue muscularity, while true muscular power is denied them by others: we find these last physiologists say there is no fibrin in the composition of the bands you name fibrous, and there is no contraction produced in them from the application of those irritants which excite true muscle. It is further maintained that the alternate contractions and relaxations, or dilatations rather, of arteries, in the manner described by such physiologists as award to them an independent projectility, has never been seen, even when experiments have been instituted for the direct purpose of settling the dispute.

Further, it is urged that a function so orderly as that of the blood's circuit cannot well be supposed subject to those casualties and impediments which would be likely to arise out of a separate and inherent power of action in the several conduits of its innumerable streams: the utmost power that these philosophers grant to the arteries is that of tonicity and elasticity—the first preventing dilatation from the impulse of the blood going beyond certain limits—the second, or the elastic property, enabling the tubes to expand so far as the tonicity will allow. The Drs. Parry, father and sons, have vindicated these principles with consummate ability, and many others, both pathologists and physiologists, incline to view the facts of the circulation through the same medium. Thus Bichat says, *all* disorders of the circulation imply disorders of the heart, while the arteries themselves may be ossified without any irregularity being produced in the function. Again, Mr. Hare, whom you will recollect I formerly quoted, as averring that cellular tissue, and *that* only, in varied degrees of density and compactness, is in reality the sole tunic of the artery, which, he says, "from its *yielding* power, is sufficient for all the purposes of circulation, by the impulse which the blood receives from the heart alone, the great muscular power of which appears more than enough for propelling it through elastic tubes to all parts of the body.

Those anatomists who defend the opposite doctrine, namely, that the arteries contract and dilate as does the heart, and thus assist in the circulation, allege that the inference respecting the want of muscularity

in arteries, merely from deficiency in fibrin, is fallacious, since muscles themselves—such as are universally allowed to be so—sometimes resist all stimuli excepting that of their specific excitants. "It would be too much," says Sir Charles Bell, in a little work on the circulation, "to infer that the iris is not muscular because it does not contract upon being pricked. We see that the heart, after it is exhausted, and refuses to act, whatever stimulus be applied, will contract when it is distended, *because distension is its natural excitement**. For the same reason an intestine will revive and act upon being distended with air, though it will not upon being pricked with needles."

Arteries, then, although destitute of fibrin, may, it is argued, be provided with a faculty tantamount to muscularity when urged to action by their appropriate stimulus, the blood.

To the second position adduced above in favour of arterial contraction and dilatation, viz. that it cannot be seen, it is replied, that the branches of the vessels are not sufficiently large for their actions to be thus detected. "The carotid artery" says Bell, "is six inches in length, and only half a one in diameter; it elongates at each contraction of the heart a quarter of an inch; and supposing it to dilate in breadth in proportion, ought I to see this dilatation?"

He further urges the difficulty of conceiving such a small apparatus as is the heart to be equal to propelling the innumerable currents of blood, and at so many different angles to every portion of the body.

Then the topical augmentation in arterial movement is we are told inconsistent with the notion that the alternate contractions and dilatation of the heart are the sole source of the blood's impetus. The blush of shame or of anger—the pallidness of fear—are local circumstances; and, if the heart is urged merely into increased, or depressed into decreased actions under the influence of passions which thus affect the blood's circulation of a part—there must be a something in the part itself explicatory of the circumstances referred to—and it was in order to demonstrate this something of independent action that I previously adduced the wonderful laws regulating increased diameter of vessels, when circumstances call for their larger conveyance of blood. Then who may explain different quantities and kinds of secretions—of natural and morbid growths—for decay and wasting of one organ or part while another flourishes in all its wonted vigour—"for a part being plentifully supplied with the vital fluid one hour, and the next left with a diminished quantity?" Antithetically too, to Bichat's position, we are told by Sir Charles Bell, that "to suppose the heart is the only engine of circulation, or even that it is the principal cause of the blood's motion, must leave us in perfect astonishment when we see it ossified in its substance, or encumbered with a tumour which surrounds it wholly, and adheres to it on all sides."

I mentioned, you will remember, when treating on the terminations of arteries, that their capillary extremities seem lost in several modes, and that in some cases a sort of membranous or cellular structure appears to receive the arterial terminations, and to transmit the nervous capillary. Now, in all this minute structure, we infer, rather than demonstrate, but, whatever be the theory of venous with arterial union, there does, it strikes me, require a something beyond mere impetus to account for the most simple, and as some suppose, the only true instances of direct junction, the capillaries of one order joining with the capillaries of the other. But how is this accomplished? Can we suppose it without supposing at the same time a sort of vital power, imbibing or absorbing, in the venous extremities, in order to convey back what the arteries have conveyed to? I shall be answered by some, that the residence of the lungs, and the suction power of the emptied heart will explain this; but, besides, as I shall afterwards have occasion to shew, there is something too much hydraulic, and merely mechanical, in these assumptions; it must be taken into account that the microscope has demonstrated a nearer approach to a continued uninterrupted stream in the capillaries in place of the *per saltem* jerk of the larger branches—a fact which would rather lead to the inference of these capillary vessels acting independently of the heart;—and, the altogether of the case may probably be this, that while the greater arterial tubes are principally subservient to the heart by their elastic and tonic faculty—and while all the branches from the aorta to the tube, still too minute for microscopic selection, are, in a measure, subordinated by the great source and centre of circulation, the heart—that the distant and more minute vessels have an independent, and a vital, and a secretory power, by which the decarbonization of the blood, as well as its conveyance, is in some measure affected; and that this vital heat and vital growth, and vital declension, are

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* I think there is some little error here in the position of our admirable physiologist, but the error is rather negative than positive; should not Sir Charles Bell have said that contraction of the heart can only be produced by its particular stimulus—the blood? for in so saying he would rather strengthen than weaken his argument in favour of specific excitability.

educed and developed, and brought to pass in a degree, by the mere circulation itself.

Some of these circumstances and processes I shall have to dwell on more particularly when considering the secerning and assimilating functions; and in respect to the great doctrine of animal heat, including the question of decarbonizing or oxygenizing processes, these will fall more in order to speak of as introductory to disorders of the heart and lungs, when both the mechanism and the chemistry of the circulation will be more explicitly expounded; suffice it now to say, that the venous portion of the circulation is considerably aided by the muscular and other forces which are brought to act upon the veins, by the *vis-a-tergo* power of the column of blood, when the stream is directed towards the heart, and by the numerous valves which are so constructed as to insure against regurgitation, so that when the blood is returning by the veins to the heart there is less necessity for, and less question concerning, the vascular force, as independent upon the heart*.

It is right further to say, that the blood-vessels are never, as are the cavities of the heart, even momentarily emptied of their blood.

Of the Pulse.—Upon what does pulsation depend? Is it produced by the alternate contraction and dilatation of the arteries themselves? or is it the consequence of the heart's systole and diastole? Does it depend upon the column of blood forcibly and momentarily striking against the sides of the arteries, and thus distending them? or is it the combined effect of all these circumstances?

That arterial contraction is not the cause of the pulse, is shewn by the fact that the beat of the artery is felt, not at the moment of contraction, but of dilatation; and let it be remembered that this arterial dilatation is not simultaneous with the dilatation of the heart, but is effected at the moment of the heart's contraction. We might, therefore, be correct in saying that the pulse is rather the effect of the impulse communicated to the vessel by that portion of blood which is propelled into the arteries coming in contact with the antecedent columns; and, being resisted in some measure by the blood already in the vessels, it is thus forced against their sides, and in this manner communicates to them their pulsatory motion.

In the capillaries and in the veins, as I have already remarked, this projectile motion becomes lost, and hence in these blood is carried forward more in the manner of a continuous stream; and likewise on this account the propulsion becomes more dependent upon forces extraneous to the heart, such as the contractile powers of contiguous muscles, and even of the vessels themselves, unchecked by the elastic principle.

Deviations from the average number of pulsations have ever been considered necessary to be recognized by the physician. This number in the adult is from 70 to 75, at puberty about 80, towards the end of the second year 100, and in early infancy from 120 to 140 or 150. Much, however, even of natural variation, has place, and there have been instances of an individual enjoying health with a pulse never beyond 30 beats in a minute. In what has been named the phlegmatic temperament, the pulse is generally slower than in sanguine, choleric, and irritable persons.

The deviations in the pulse have been judged of in a very different manner by different practitioners. While some contemn any necessary distinction beyond number, others again divide the arterial beats with a fanciful and futile minuteness. Truth in this, as in most controverted points, lies about midway.

I would for myself say, that besides frequent or quick succession of pulses, the practitioner ought to have his attention alive to their strength, their fulness, their regularity, and their freedom.

When I am called to a patient whose pulse beats more than 100 strokes in a minute, I immediately infer that there is a more speedy succession of the alternate actions of the heart, than consists with health; for this alone is sufficient to induce an inordinate celerity of pulsation; nay, by this alone can it be occasioned, whether in a more temporary or more permanent manner. But the next point to ascertain would be, does this accelerated action denote an increase of power? or is it, on the contrary, accompanied by tokens of weakness? If the former, I judge that the muscular contractions of the heart are not merely more frequent, but likewise more forcible than common, by which a more than ordinary impetus is given to the propelled blood; but this celerity may, on the contrary, be a token not merely of irritation, but of absolute weakness; perturbation and debility being quite compatible, and very often, indeed, simultaneous.

When a sensation of fulness is given to the finger placed upon a beating artery, such fulness shews that a more than usual quantity of blood is thrown out at each contraction of the ventricle; but, even here, weakness may prevail, and indeed, a want of a due tonicity in the artery is not seldom the occasion of a full pulse, which the young practitioner should be careful to distinguish from a plethoric indication, where there is

* I shall afterwards have to refer to the fact and its rationale—that the venous system is relatively fuller of blood in advanced than in early life. Suffice it here to say that the tunics of the veins are the same in number, though not in power, with those of the arteries.

fulness with force. Indeed, mere plethora is not so often present as we are apt to suppose, for it is either relieved by the emunctories or excites local disorder.

There is a form of pulse usually called hard, which gives the sensation to the finger as if of a vibratory jerk, and seems to be produced by the fibrous and elastic coat of the vessel acting rather in contention than harmony. It is the pulse of inflammation, more especially when such inflammation is principally directed to what are called serous membranes, hereafter to be described. Softness, when carried to a disordered extreme, is of course opposed to this; so that we have clearly hardness and softness, fullness and smallness, as well as merely slowness and quickness demanding attention. In respect to intermittent and other irregularities of number in the pulsations, these are almost necessarily so connected with visceral affection, either functional or structural, and more especially of the heart, that these last will be most properly noticed, when heart, pulmonary, and other disorders come before us in detail.

I will now only reiterate that, in opposition to what so great an authority as Heberden states, viz. that number is the only thing to be taken into account, and that while your patients' pulse beats under 100, you have not much to fear, there are, besides, strength and weakness, hardness and softness, fullness or smallness, regularity and irregularity to be recognized. All these varieties of pulsation will of course be referred to as the lectures pass from general principles, into detailed particulars.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE IX.

Gynæcotomy—Osteology, and Obstetric Peculiarities of the Pelvis of Woman.

Gynæcotomy comprehends five principal divisions: 1, the pelvis, and its annexions; 2, the uterus; 3, the internal appendages of the uterus; 4, the external appendages; 5, the mammæ.

Of the Pelvis or Basin.—The obstetric properties of the pelvis can only be learned on that of a well-formed adult woman, that is, of one eighteen or twenty years of age, which is that period of life, in temperate climates, at which she is capable of becoming a mother, with perfect safety to herself and to her infant. At an earlier age, the pelvis is not sufficiently strong or developed, to bear the burthen of pregnancy or force of parturition; and, at a later age, the bones which form the osseous canal of this part, are too firmly articulated, and their ligaments too rigid and strong, to allow the commodious and easy passage of the infant. At both of these ages, women purchase the pleasures of maternity at a very dear rate, generally at the risk of their own and their infants' lives. We therefore describe a pelvis at the adult age as a standard or natural one.

The pelvis may be normal or abnormal, that is, natural, small, large, or deformed. It must be studied without any of the soft parts that cover it, or of the organs which it contains; and afterwards in relation to the latter. The old anatomists first described the pelvis as a part of the trunk and the bones which form it (Diembroeck, Dionis, St. Hilaire, Mauriceau, De la Motte), a proceeding which is now universally adopted. It is not enough to study its anatomical but also its obstetrical peculiarities; and this has been done by the most eminent obstetricians (Deventer, Levret, and Smellie), as well as by all their distinguished successors to the present time. Modern obstetricians in general confine their description to those parts of the pelvis

concerned in parturition. They properly consign the minute descriptive anatomy to the professors of that branch of science.

Of the Bones which compose the Pelvis.—The pelvis or basin, in the adult human subject, is situated below the vertebral column or spine, which it supports, and above the inferior extremities, which support it (*plate* 1, *fig.* 1). It is a bony canal, which forms the lower part of the abdominal cavity, contains that portion of the intestinal tube called the rectum, and also the bladder and internal organs of generation. It is said to be the centre of gravity of the body, and affords a passage to the principal emunctories which convey the excretions of digestion, the urinary and uterine secretions and various morbid growths, both fluid and solid. It is also subservient to the process of generation, the progress of the infant during parturition, and the puerperal evacuation. It likewise contains and protects the impregnated uterus, and forms the acetabula, cotyloid cavities or sockets for the thigh bones. In consequence of its subserviency to all these important offices, it is necessary that it should be permanently fixed and immoveable, but more especially on account of the great force applied to its parietes by the natural mechanism of parturition.

The direction of the pelvis will vary according to the different attitudes of the body; it is oblique superiorly and inferiorly, and anteriorly and posteriorly, and becomes nearly vertical and horizontal, according as the woman assumes the sitting or recumbent posture. The obstetrician must study this part distinct from the rest of the body, as one intimately concerned with his art—as the book of nature,-which must be always consulted, and which affords the best precepts for practice. We should therefore study its peculiarities—its regions, dimensions, directions, planes, axes, structure, connections, and varieties. The knowledge of all these is indispensable to the obstetrician who wishes to practise with dexterity the operations relative to his art, as it would be extremely difficult, if not impossible for him, to pass the hand or an instrument to extract the infant, without knowing the direction he was to introduce and withdraw it. Deprived of this knowledge, one might practise obstetricy for thirty or forty years, and be a most ignorant, inexperienced, and injudicious obstetrician (Dewees). Such an obstetrician could not perform a manual or instrumental operation with the slightest safety; and yet how many thousands of such ignorant individuals are in practice in this country!

The pelvis of the adult human female is composed of four bones, the *sacrum* and *coccyx* posteriorly, or on the median line, and the two *ossa innominata, vel coxalia,* on each side and anteriorly (*plates* 1 and 2).

The ossa innominata are composed of three bones on each side in the fœtus, *os ilium, os ischium,* and *os pubis*, and these are described separately by anatomists and obstetricians.

The *sacrum* is the most posterior bone of the pelvis, is situated between the last lumbar vertebra and the coccyx, and is wedged between the ossa ilia on each side (*plate* 1, *fig.* 1, *n, n, n*). It was called sacred bone, on account of its triangular form, of having been offered as a sacrifice by the ancients, and from its supporting the genital organs, which were named sacred. It resembles a triangular pyramid reversed, having its base, superiorly, attached to the last lumbar vetebra, and from its union anteriorly a projection is formed, called the *sacro-vertebral point or angle*, and in ancient obstetric language, the *promontory of the sacrum*. The anterior, internal, or pelvic surface of the sacrum, is more or less concave, and presents four or five quadrangular spaces with transverse lines, and five foramina on each side near the central line of the bone, converging inferiorly, and destined for the passage of the anterior crural nerves. These are often pressed on by the fœtal

head, and the effect is cramp in the limb on the affected side, which is often an urgent symptom during labour, and will be described hereafter. There are small projections between each row of foramina, for the attachment of the muscles. The concave surface of this bone is called, in obstetric phraseology, the *concavity or hollow of the sacrum* (*plate* 1, *fig.* 4, *e, e, e, e*). There are also to be seen two rows of foramina, for the passage of the branches of the posterior sacral nerves. There are two other small triangular spaces, which terminate the spinal canal of this bone. We should also recollect that the eminences afford attachment to the posterior sacro-iliac ligaments. The sides of the sacrum are articulated with the coxal, iliac, or nameless bones, and the union is called the *sacro-iliac junction*, or *symphysis*, or *synchondrosis* (*plate* 1, *fig.* 1, *m, m*). This bone is so firmly wedged between the ossa ilia on each side, and so strongly united to them, that it supports the weight of the body without yielding. Inferiorly, the sacrum gives insertion to the large and small sacro-sciatic ligaments (*plate* 1, *fig.* 3, *g, h*). The summit is elliptic and a little convex, presenting a cartilaginous surface for the union with the coccyx. The sacrum has been considered by some as a simple prolongation of the spine, and is formed before birth by five pieces of bone, somewhat similar to vertebræ, and hence called false vertebræ. In most cases we can readily observe as many points of ossification. The breadth of the base or superior margin of this bone is four inches, that of its apex or inferior part two inches; and its length from the base to the apex is generally about four inches and a half.

The *coccyx*, so called from the resemblance to the beak of a cuckoo, is considered by many an appendix to the sacrum, and is of a pyramidal or triangular shape; its base being articulated to the apex of the sacrum, its apex affords insertion to the sphincter ani (*plate* 1, *fig.* 3, *b*; *fig.* 4, *c*). It is composed of three or four pieces at birth, which are united to each other by cartilage, and in some adult subjects are not perfectly ossified, and hence admit of a regressive motion during parturition. This motion is denied altogether by many eminent professors. M. Velpeau asserts, and I entirely agree with him in opinion, that the coccyx can move on the sacrum in most women until a late period in life, though Drs. Denman and Hamilton assert the contrary.

The anterior aspect of this bone is concave, and supports the extremity of the rectum; while its posterior surface is convex and rough, and is separated from the integuments by the posterior sacro-coccygeal ligament only. Its sides afford attachment to the sciatic ligaments, coccygei muscles, sphincter and levator ani. Dr. Denman heard the noise made by the fracture of this bone and its separation from the sacrum; inflammation supervened, and it was finally expelled. I have met with some cases of this kind, and others caused by external injury. I once attended two cases in the same family together; one was caused by parturition, the other by a contusion. The coccyx may be pushed outwards to the extent of an inch during parturition, as every obstetrician of moderate experience can attest; or it may be entirely separated from the sacrum. Deventer was aware of this fact, and was accustomed to pass his hand into the vagina to push back the coccyx—an operation which is very seldom if ever necessary, and scarcely ever performed by modern obstetricians. Sennert was of opinion that the great rigidity or anchylosis of the sacro-coccygeal joint caused the death of the mother and infant*. Amand was more correct when he stated, that this rigidity produced excruciating pain about the anus, in some women, after delivery†. When the coccyx is anchylosed in its normal position, or at oblique or right angles

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* Opera Lib. 4. † Nouv. Obs. &c.

Fig. 1.

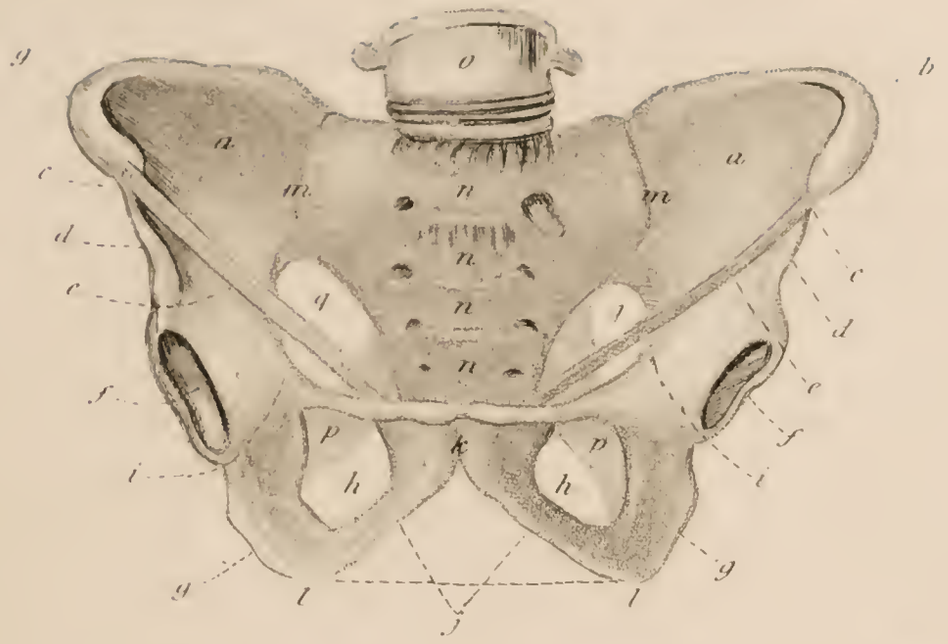
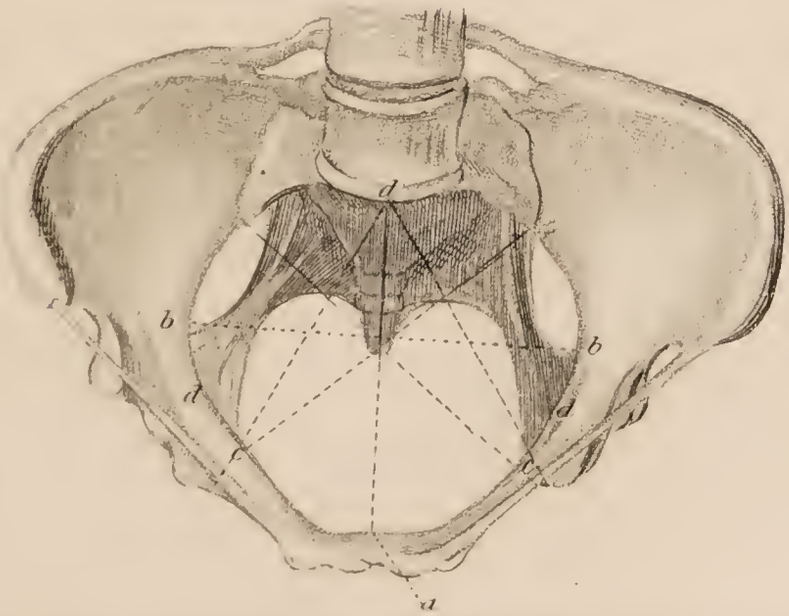


Fig. 3.

Fig. 4.

Fig. 2.



London, G. Henderson 2, Old Bailey.

with the sacrum, Mauriceau* and Peu† considered the birth of the infant impossible unless the joint was relaxed or lacerated; but De la Motte maintained that either of these states was very rarely an obstacle to delivery‡. Burton ridiculed the practice of Deventer, and most judiciously condemned it§. The separation of the coccyx is of frequent occurrence with women who become pregnant at an advanced age, for example, from thirty or forty years and upwards. Women at the age now mentioned have generally slow first labours. Most practical obstetricians, I suppose, have attended cases of this description. Smellie describes a case of this kind, of a woman aged 33 years, and Velpeau one aged 31, and another aged 37, who had the coccyx separated, and died undelivered‖. The coccyx is generally broken off in obstetric demonstrations of the pelvis of the skeleton, many examples of which I now shew you. For my own part, I have no doubt that the sacro-coccygeal articulation is often injured by parturition, and I have attended many women who complained of excruciating pain in this part for days, and sometimes for weeks after delivery. The nature of the injury can be often ascertained by external examination; but in some instances, the index finger must be passed into the rectum, and the thumb applied, in apposition, on the sacro-coccygeal joint externally, when the state of the articulation can be readily detected. When the sacro-coccygeal joint is much injured, we may expect rapid inflammation and its consequences; and in such cases leeches, cupping, purgation, and the antiphlogistic regimen, should be speedily employed. Dr. Dewees, the eminent obstetric professor in the University of Philadelphia, describes a most severe pain of this part, after parturition, which he could only subdue by large doses of camphor, opium, and oil of juniper. I am disposed to think that this pain is often induced by the contusion or dislocation of the joint, during the pressure of the infant's head. The os coccygis admits of regressive motion, to the extent of an inch during parturition, and greatly facilitates the passage of the infant's head, by assisting in enlarging the cavity of the pelvis.

Ossa Innominata, *Ossa Coxalis*—HaunchBones.—These bones could not compared to any known body by the older anatomists, and hence called nameless bones. Some of the French writers, Capuron, Maygrier, Velpeau, &c., adopt the term of Celsus, and call them the coxal bones, describing each as a single bone, because the three divisions apparent in infancy disappear and cannot be traced in the adult. In this country we retain the names of the three primitive divisions, and describe each innominatum as consisting of three parts—the *os ilium*, *os ischium*, and *os pubis* (*plate* 1, *fig.* 1).

The iliac bones are commonly termed the hip-bones; the ischia or seat bones support the weight of the body in the sitting posture; and the pubes or front bones, these being on each side, are those to which the genital organs are attached (*plate* 1, *fig.* 1, *k*); all those bones are united to each other by cartilages and ligaments, and taken collectively from the pelvis (*plate* 1, *fig.* 1).

The *ilium* is the most posterior and extended of these bones; its form is somewhat triangular or quadrangular: it presents two surfaces, an external and internal, three sides, and three angles. The external surface is both convex and concave, and is called the *dorsum* by anatomists. The internal surface is called the iliac fossa, and is very capacious, to allow space for the development of the gravid uterus (*plate* 1, *fig.* 1, *a*, *a*). The superior border of this bone resembles an italic *S*, and is called the crest of the ilium. There is a small projection from its posterior third towards its termination,

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* Obs. sur les Malad. des Femmes. † Pratique des Accouchemens.
‡ Traite Complet des Accouch. § New System of the Art of Midwifery. ‖ Op. cit. 1835.

from which a ligament runs to the transverse apophysis of the last lumbar vertebra. Towards the termination of the anterior border are two eminences, the anterior superior and inferior spinous processes of the ilium; on the opposite extremity of the bone are theposterior superior spinous process, and the posterior inferior process, the latter being united to the sacrum. The bone is prolonged posteriorly, and forms the great and small sciatic notches (*plate* 1, *fig.* 3). Such are the obstetric peculiarities of the iliac bones; but there are many others which I purposely omit, though described by Burns, Capuron, Velpeau, Duges, and many other obstetric professors, because they are not concerned in the function of parturition.

The *pubis*, or share-bone, is so called from the attachment of the genital organs to its anterior part; it is divided into two branches, the superior or ileopubic or superpubic, and the inferior, or ischeopubic or subpubic. The superior branch is nearly triangular in its middle part, is flattened as it becomes enlarged towards its anterior extremity, and is thickened towards the ilium; and hence the superior surface is lightly sinuous and concave; it is larger behind than before; and thus the internal and external surfaces present a contrary arrangement. The subpubic branch descends obliquely and laterally; it is flattened on both its surfaces, and is larger at its commencement than termination; it is about seven or eight lines long. Each os pubis is united with its fellow in front, and the junction is named the *symphysis pubis*. The width of this joint is generally an inch and a half. The arch formed inferiorly under the symphysis, by the bones on each side, is named the *arch of the pubis* (*plate* 1, *fig.* 1, *k*).

The *ischium* presents two surfaces, two extremities, and two borders. The external surface of this bone is convex and irregular, and forms a part of the acetabulum. The internal face is concave, and offers an inclined plane from above downwards, behind backwards, and without and inwards; and this plane should be recollected by obstetricians, as the infant's head sweeps along it, in descending towards the perineum. The superior extremity of the bone is attached insensibly to the ilium (*plate* 1, *fig.* 1, *l*, *l*); the inferior is called the tuberosity of the ischium, and is surmounted by a small branch which joins the ramus, or ascends, and forms the lower branch of the pubis. The anterior internal border concurs in forming the oval or subpubic or oval foramen (*plate* 1, *fig.* 1, *h*, *h*, *fig.* 3, *k*); and the posterior or external border is concerned in the sacro-ischiatic notch (*plate* 1, *fig.* 3, *i*, *j*). This last, at its inferior third, presents a triangular prominence, oblique behind and inferiorly, which is called the spine of the ischium.

The *foramen ovale*, *f. thyrodieum*, is nearly closed by the obturateur ligament, and through which nerves pass to the superior part of the lower extremities, and these are often pressed on by the infant's head, while descending during parturition; the consequence of which is pain, numbness, or some uneasy sensation in front of the thighs. This pressure does not always occur, on account of the difference of size of the fœtal head, and of the maternal pelvis. When the pelvis is large and the head of moderate or small size, the woman does not suffer any pain in the anterior or any other part of the thigh or leg. In some cases, however, the pain is very severe for a short time, while the fœtal head is descending towards the outlet; but relief is generally afforded by friction with the hand on the front or painful part of the affected limb.

Of the Articulations or Symphyses of the Pelvis.—The articulations of the bones of the pelvis do not differ from those of the same species in other parts of the body. They are of a mixed kind, according to ancient authors, and partake of synarthrosis, and more so of amphiarthrosis, which is the articulation by continuity of the moderns.

The articulations of the pelvis are generally called symphyses—as the symphisis of the pubis, of the sacrum and ilium, of the sacrumand coccyx, and of the sacrum and lumbar vertebra (*plate* 1, *figs.* 1, 2, 3, 4). It is necessary to examine the pelvic joints in the recent subject, in order to understand their exact structure; and then we find the following formation. The joints of the pelvis are the two sacro-iliac posteriorly (*plate* 1, *fig.* 1, *m, m*), the sacro-coccygeal inferiorly (*figs.* 3, 4), and the pubic anteriorly (*fig.* 1, *k*).

The sacro-coccygeal and pubic joints are occasionally inflamed by the contusions which they are sometimes destined to sustain during parturition; and their surfaces may be entirely separated fromeach other by ulceration. The symphysis pubis may also be separated, and when such injury occurs, the most active treatment is required. Happily such separation is comparatively rare; but many examples of it have been recorded, and some cases have fallen under my own observation. This joint is sometimes anchylosed, according to Degranges, Burns, Velpeau, &c. and in such cases can rarely be inflamed, or the bones that compose it separated. The sacro-iliac symphyses may be similarly affected, but they very rarely separate, though there is evidence that they are occasionally relaxed. As a general proposition, it may be maintained, that inflammation, abscess, or separation of the pelvic joints is of comparatively rare occurrence. When these affections do happen, they are to be treated upon the ordinary principles of surgery. It is scarcely necessary to observe, that inflammation of joints, or of cartilages and ligaments, require very active treatment.

The principal *ligaments* of the pelvis, in an obstetric point of view, are the *internal and external sacro-ischiatic* on each side (*plate* 1, *fig.* 3, *g, h*), and the *obturateur;* and these are liable to rigidity or relaxation. The former assist in the formation of the outlet of the pelvis, and in an advanced period of life may offer considerable impediment to the parturient process. The obstetrician may be reminded that the pelvis is lined by muscles, contains arteries, nerves, and lymphatics, the uterus and its appendages, the urinary bladder, and rectum, all of which organs may be more or less injured by natural or preternatural parturition.

Dimensions, Directions, Planes, and Axes of the Pelvis.—The pelvis presents an external and internal surface, a base and summit. The external surface serves for the attachment of the coxo-femoral muscles, and is divided into four regions, the anterior, posterior, and two lateral. The internal surface alone is concerned in the mechanism of natural parturition. The pelvis is divided into the great, superior, abdominal, or false; and the small, inferior, or true pelvis, the linea ileopectinea being the line of demarcation between them. The inferior or true pelvis is again subdivided into the *brim* or *entrance*, the *cavity* and *outlet;* it contains the internal genito-urinary organs, the rectum, and the hypogastric and sacral vessels and nerves. The true pelvis has two apertures, which are called the superior and inferior strait.

The *superior, abdominal, great strait, isthmus, or boundary* of the pelvis, is the osseous margin which separates the true from the false pelvis, formed by the superior margin of the sacrum, the linea ileopectinea, and the superior margins of the ossa pubis (*plate* 1, *figs.* 1, 2). Its form is variable, frequently oval*, cordiform†, elliptic‡, or triangular. It is measured by four diameters; the *antero-posterior*, which extends from pubis to sacrum, and is also named the *sacro-pubic*, the *conjugate* or *short diameter* of the brim (*plate* 1, *figs.* 2 and 4, *d a*)—the *transverse*, which extends from one ilium to the other (*plate* 1, *fig.* 2, *b b*), and hence called *bis-iliac*, and the *two oblique* (*c c*), which extend from the sacro-iliac symphyses to the opposite acetabula; and these are

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* Deventer, Smellie. † Levret. ‡ Burton, Chaussier, Flammand, &c.

denominated the *long diameters* of the brim. The *antero-posterior diameter* measures in the skeleton about four inches, according to British and French writers; the lateral or *transverse* five inches; but it is diminished half an inch on each side in the fresh subject, by the presence of the psoæ and iliac muscles and vessels, and does not really present more than four inches during labour; the *oblique, long, or diagonal diameter*, measures five inches and a quarter, and is considered the longest by almost all writers. These dimensions are subject to numerous varieties, and are scarcely the same in any two pelves, and should not be understood but in a general manner. There are scarcely two writers who agree in their account of the length of the pelvic diameters, as they must vary according to the size of the woman. Velpeau has added another, which he terms the sacro-cotyloid diameter (*plate* 1, *fig.* 2, *c, d*). The *inclination* of the superior strait in the erect position is not horizontal; but its posterior part is more elevated than its anterior, so that it is directed from above downwards, and from behind forwards. It varies from thirty-five to sixty degrees. Its *axis* is represented by an imaginary line, drawn from the umbilicus to the inferior part of the sacrum, and according to some, to the apex of the coccyx (*plate* 1, *fig.* 4, *c*, *plate* 2, *fig.* 1). Levret considered it thirty-five, Smellie and Muller forty-five, Bang fifty-five, Carus thirty, and Nægelé from fifty-nine to sixty degrees. The inclination of this axis has occupied the consideration of obstetricians for more than a century. It diminishes in those who assume the sitting or recumbent posture, who curve the body by flexing the upper and lower extremities towards each other; and is increased by those who carry loads on the abdomen, as fish and fruit sellers, who in maintaining the equilibrium of the body, throw the superior extremities backwards to the central line of the body.

A knowledge of this fact leads obstetricians to advise the parturient woman to curve the body by drawing up the inferior extremities towards the abdomen, and at the same time bending the head and trunk towards the knees, thus lying in a curved position, while the fœtal head is passing through the pelvis. This position diminishes all the axes of the pelvis, and facilitates parturition.

The *cavity of the pelvis* is divided into four regions: the anterior, posterior, and two lateral. The anterior region is slightly concave from side to side, formed by the posterior part of the symphysis and body of the pubis. The posterior region is formed by the anterior surface of the sacrum and coccyx, is concave, and presents foramina for the passage of the crural nerves. The lateral regions form a plane, inclined above and inwards, present the sciatic notches, which are converted into apertures by the sacro-ischiatic ligaments (*plate* 1, *fig.* 3, *i, j*), a square surface which corresponds to the acetabulum and the sciatic spine, more prominent within the pelvis than the parts situated before and behind, offering by this disposition two inclined planes, an anterior and posterior (*plate* 1, *fig.* 3, *d, k, i, h*). These planes assist in impressing on the head the rotation necessary for placing its antero-posterior diameter in the long diameter of the outlet or inferior strait. The anterior plane of the side pushes the presenting part of the head under the arch of the pubis, while the posterior forces the front part of the head into the curvature or concavity of the sacrum (*plate* 2, *fig.* 2).

Dimensions of the Cavity of the Pelvis. Antero-posterior Diameter.—From the middle of the symphysis pubis to the middle of the sacrum measures about five inches, on account of the concavity of the latter, which affords an inch in depth. The *transverse diameter* measures about four inches and a half. These admeasurements are diminished as they approach the inferior part of the pelvis.

The *depth* of the anterior parietes of the pelvis is about an inch and a

Fig. 1.

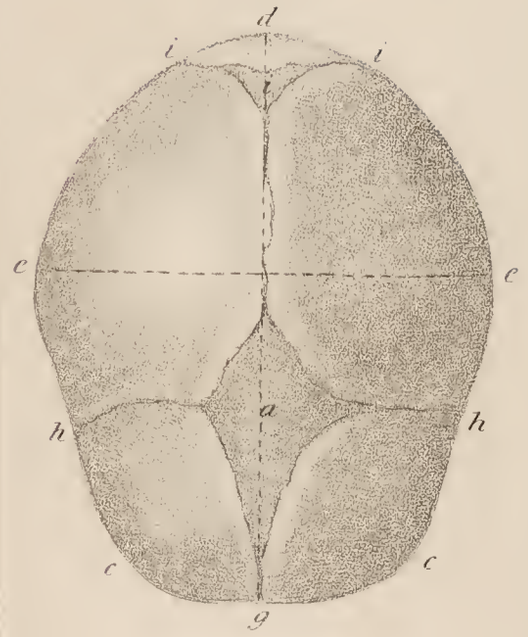
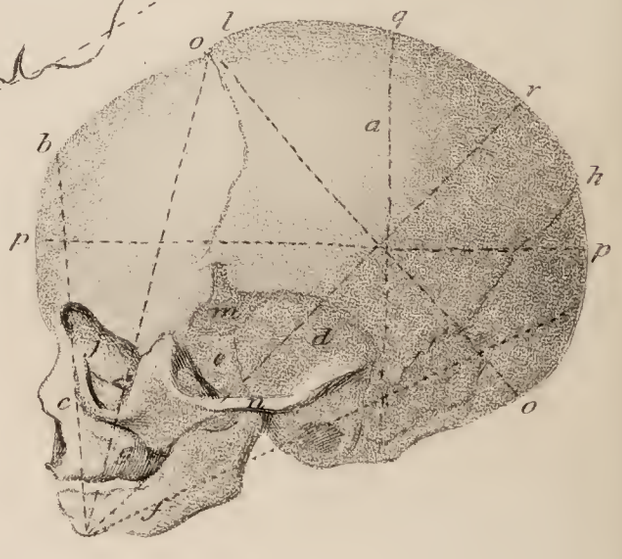


Fig. 2.

Fig. 3.



London: G. Henderson, 2. Old Bailey.

half; of the posterior, four inches and a half or more; and the lateral parietes, three inches and a half.

The *direction* of the pelvic cavity represents a canal very much curved before, and falling perpendicularly from its axis to its two sides.

Its *axis* is represented by a curved line passing through the middle of the canal following the curvature of the sacrum (*plate* 1, *fig.* 4, *d*, *d*).

Inferior Strait. The Inferior or Perineal Strait, Summit of the Pelvis or Outlet—is formed by the point and edges of the coccyx, the edges of the sacro-ischiatic ligaments, the tuberosities of the ischia, and the ischeo-pubic branches; it is triangular or somewhat cordiform, as it represents the figure of a heart of a playing card.

The inferior strait has four diameters, the *antero-posterior*, *coccy-pubic*, or *long diameter*, which extends from the extremity of the coccyx to the arch of the pubis (*plate* 1, *fig.* 4, *b*, *b*); the transverse, *bis-ischiatic*, or short diameter, extending from the posterior and internal parts of the tuberosity of the ischium to the opposite one (*plate* 1, *fig.* 1, *l*, *l*); and two *oblique diameters*, which extend from the reunion of the ischiatic and pubic branches to the middle of the sacro-ischiatic ligaments. All these diameters measure four inches; but the antero-posterior is said to measure five inches, on account of the retrocession of the coccyx during parturition. The arch of the pubis, or anterior part of the pelvis, is four inches broad at its base; the length of each branch of the arch is three inches and a quarter.

The axis of the inferior strait is represented by an imaginary line drawn from the sacro-vertebral union, or obstetrically, the *promontary of the sacrum*, through the centre of the vagina, or centre of this strait (*plate* 2, *fig.* 2).

The reunion of the axes of the brim, cavity, and outlet, form a curve, the concavity of which is in front, and the central lines of the superior and inferior straits forming the extremities (*plate* 1, *fig.* 4, *d*, *d*). The obstetrician is to bear in mind the direction of the planes of the sacrum, coccyx, and perineum, as these direct the infant's head with geometrical precision.

It is also to be recollected that if the axes and diameters of the superior and inferior straits were not reversed, in women whose attitude is erect, the contents of the gravid uterus would be expelled on the slightest exertion, especially in the last months of utero-gestation. The medical practitioner must perfectly understand this part of obstetricy, or he can never comprehend the mechanism of parturition.

He ought to know that the fœtal head descends during parturition in the lines delineated in plate 1, fig. 4, and in plate 2, fig. 2, which represent the axes of the brim, cavity, and outlet of the pelvis, and in which directions, according to the circumstances of each case, the obstetrician must, in difficult parturitions, extract the fœtus by manual or instrumental operations. If, ignorant of a knowledge of these most important obstetric facts, any person is so unprincipled, rash, and inhuman, as to attempt to assist a parturient woman, he or she must do her dangerous and too often fatal injury, and almost invariably destroy the innocent cause of her suffering.

ON AUTUMNAL REMITTENT FEVER.

By CHARLES VERRALL, Esq., Surgeon.

Read before the Westminster Medical Association.

I HAVE often thought that if medical practitioners in general would either carefully note down, at the time, all cases of peculiar interest which fall under their observation, or would, after a lapse of years, collect and record their professional reminiscences, taking some means of making them known to the world, they would be bequeathing to their brethren the most valuable of all possible legacies, and from which a mass of information might be collected of incalculable benefit to mankind. These reminiscences should contain not merely an account of individual and extraordinary cases, which perhaps is, after all, the least important part of the office, but should be accompanied with descriptions of the situation and climate of the places in which they have practised; of the occupations and habits of the inhabitants; of the class and characters of the most prevalent diseases, and of the various methods, whether successful or not, with which they have been accustomed to combat them. From such an office no one need be deterred by diffidence in his powers of mind; he who is competent to treat, is assuredly capable of describing the symptoms and character of disease; any man of common observation can surely state what diseases most frequently occur in his district, and any one can tell whether the country around him is flat or hilly, moist or dry; whether the soil be of clay, or sand, or chalk; whether the place be populous or otherwise, airy or close; whether the inhabitants be agriculturists or artisans; whether they be sober or intemperate; together with any other simple observations which may in any way serve to throw a light upon the subject. Of such reminiscences I have myself collected a considerable number, either in my mind or upon paper; and one of them, the first which I have ventured to bring into public notice, is an Essay upon the Character and Treatment of *Autumnal Remittent Fever*.

It will not be necessary for me to detain you long by dwelling upon the general characters of fever, or upon its division into the three great classes of intermittent, remittent, and continued: but, before I proceed to describe that branch which I have chosen for my theme, I would entreat your patience while I say a few words on the subject of FEVER, in its general sense, partly because I am fond of a little bit of theory, and partly because if my theory be at all borne out by facts, it will have some considerable influence in directing the mode of treatment, and will especially tend to controvert the opinions and the practice of a physician of France, which has lately attracted so large a share of the public attention. Fever, in opposition to all the other orders of disease, which are all more or less local, has been defined to be a disease of the whole system; and this may be said to hold good even with fevers of the exanthematous kind, notwithstanding their peculiar determination to the skin. But with these I have nothing to do here, my object being to treat of simple fever only—that which is unaccompanied by any specific eruption. To the above definition I have this objection to make, that it either goes too far, or that it does not go far enough. Why, and how is it a disease of the whole system? Is it because the vascular, the muscular, the digestive, the secretory, and all the other systems of the body are affected at the same time? If so, concussion of the brain, the depression of a portion of one of the bones of the cranium, and hydrocephalus, and epilepsy, and many other things, may be called diseases of the whole system, inasmuch as all the systems and all the functions of the body are affected by their existence or during their continuance. Yet most of the above effects are derived from local causes; from accident, from pressure on the brain by water or blood, or by matter formed within the skull, from some tumour formed in the brain itself, or some other disorganization of that part. In this sense then, the definition goes too far, for although in fever all the functions may be in a state of derangement, all the systems are assuredly not really in a state of disease. But, in another sense, the definition may be said to be true, but it goes not far enough, inasmuch as it does not teach us wherefore or to what extent it is true. When then, in any sense, do I admit that fever may be properly called a disease of the whole system? Why, because I believe it to be an affection of that system upon the existence of which all the others depend, from which all their actions emanate and all their power are derived, whose influence "pervades, sustains, and animates the whole," and which cannot therefore be itself affected by disease without producing a corresponding affection in every organ and in every part over which its influence extends. I would define fever, then, to be a disease of the whole nervous system excited by the introduction of some specific poison. I could say much in favour of this definition, but I must confine myself here to a few very general observations. Let me direct your attention to the analogy which exists between fever and the effects of the narcotic poisons, which, without producing any sensible or visible local effects, depress and in large doses destroy the powers of the body and the mind, acting, as we all believe, through the medium of the nervous system. Look at all the phenomena of fever; the depression of the spirits, the prostration of strength, the sense of lassitude and weari-

ness, the universal rigor, not depending upon, though of course somewhat modified by, external causes, and with all these the absence of local affection—of any point upon which one can lay one's hand and say, here is the source of the mischief. There is, it is true, headach, but the brain, the great centre of the nervous system, must of course be peculiarly affected; but there is backach also—the spinal cord is affected; the limbs ach—there is a painful thrill extending even to the toes and fingers, the whole nervous system is evidently disordered and diseased. Their morbid influence affects all the organs of the body; the heart does not beat, the lungs do not play, the stomach does not digest, the glands do not secrete as they ought to do, and all because the nerves which animate have lost their wonted power. Look next at the state of reaction, the violent heat, the throbbing headach, the vehement action of the heart and arteries—the whole system has aroused itself—it struggles to throw off the incubus that has overlayed it; taking a fit of ague for our example, as being the most simple and the most familiar, the struggle at length succeeds; sweating comes on, the heat abates, the pain subsides, the thirst is alleviated, and at length the patient is restored to apparent health. Look, now, at the remedy—the antidote. Observe its action. It produces no sensible—I presume no visible effects upon the stomach through which it is applied—it acts as opium acts upon the nerves; as the former prevents the return of a fit of toothach, or of earach, or of spasm, so does quinine prevent the recurrence of the fit of intermittent fever; the truth of this opinion is much strengthened by the fact that other medicines, which cure diseases of the nervous system, will often cure ague; thus opium, and wine, and brandy, and ammonia, &c., will cure ague, while on the other hand bark, and steel, and arsenic, which are the great remedies for intermittent, will also frequently remedy many of the diseases of the nerves, such as periodical toothach or headach, and tic-douloureux. Looking at all these things, have we not some right to say that fever is a disease of the nervous system, through the medium of which it affects the whole of the frame? and as a further proof, I might call your attention to the circumstance of periodicity, which exists in a slight degree even in continued fever, which exists in many other, perhaps in all other diseases of the nerves, but which does not exist in the diseases of other parts of the system. As to the other part of my definition, I shall say but little—the question of specific poison is, of course, generally admitted. There is, however, one little observation bearing on this part of the question, which I cannot refrain from mentioning. The remedy, quinine for instance, must be continued long enough, or the poison will reassume its power, and the diseased actions will recommence. This is analogous to the action of mercury in syphilis, in which disease the virus will recover its sway if the medicine be too soon discontinued. If there be any doubt as to the necessary existence of a specific poison for the production of fever, I presume those doubts will be confined to fevers of the continued form, which we are accustomed to think do sometimes proceed from causes independent of atmospheric influence. Thus we talk of diseases assuming a typhoid character; of complaints degenerating into typhus. But supposing this language to be correct—and I deny it not—(I even think, for instance, that an ill managed remittent might probably degenerate into typhus)—but, supposing this language to be correct, how can we account for the fact upon the presumption of a necessary specific virus, since it is believed that intermittents and remittents proceed from *vegetable*, while continued fevers are the effects of a poison proceeding from decomposed *animal* matter. May we not reply to this objection, that the body under some states of disease is capable of generating and imbibing?—nay, do we not know that, in the case of putrid pus, for instance, it sometimes does generate and imbibe, a poison analogous to that which, existing in the atmosphere, might be the origin of sporadic typhus? Assuming, then, that I am correct in my definition, we shall be able to explain some things which otherwise might puzzle us. In the first place, we need not wonder that we can account so little for the various phenomena of fever, since we know so little of the nerves themselves, of that wonderful system to which the disease belongs, and of which, indeed, we know nothing but the mere anatomical structure and distribution, together with a few palpable facts, such as its constituting the organs of sensation, of volition, of imagination, of memory, &c., without understanding in the slightest degree from what powers its mighty influence is derived, by what laws its actions are regulated, or by what means its functions are performed. In the next place, we shall cease to be surprised that dissection has explained to us nothing about the nature and cause of fever, since the knife,, which can tell us so little about the nerves themselves, can tell us as little about the diseases which affect them. Until indeed the knife can demonstrate to us how a man dies from the taking of an overdose of opium, I shall not expect it to demonstrate the causes of his death, who has taken an overdose of marsh miasmata, or of putrid animal exhalations. The ravages committed by the violence or duration of diseased action is all that dissection can show us; to the mysterious source of those diseased actions the knife cannot direct our way. If again I am right in my opinion, then may we safely assert that fever is not gastro-enteritis, what-

ever Broussais may say to the contrary. Shall we call an ague splenitis or hepatitis, because the spleen and the liver are often inflamed or congested during the progress of that disease? Shall we call an ossified aorta dropsy, because previous to its destroying life it generally brings on anasarca? It would surely be as fair to do this, as it is to give the name of gastro-enteritis to fever, because the latter disease in the course of its progress may cause inflammation or congestion about the stomach or intestines; and as reasonable would it seem to me for a man who has to treat an obstinate intermittent, to confine his attention and his remedies to the reduction of an enlarged spleen, as for one who is attending a bad case of continued or remittent fever, to course up and down the abdomen with his half-a-dozen leeches, without thinking of the malady which has not only caused the mischief that may exist there, but which is extending its destructive ravages into the remotest corners of the system. Although for these classes of fever we have not as yet discovered any specific remedy, as we may almost assert that we have done for intermittent, I am decidedly of opinion that we have the means, and that those means ought to be most sedulously employed, of arresting their progress, of mitigating their ravages, or finally, of supporting the powers of life until the poison itself is either thrown off or destroyed, or till the diseased actions it has excited shall have spontaneously ceased. Having thus reached the point at which I aimed, having from the theory I have ventured to broach deduced a conclusion of much practical importance, and one which I think will partly account for the success of those remedial measures which I have been in the habit of pursuing, I shall now proceed to the particular consideration of remittent fever, a disease which I fancy myself doubly authorised to describe, because fevers of that description were exceedingly, almost annually, prevalent in the district in which I resided, and because I may say with the poet "Quorum pars magna fui," having once suffered myself under a most violent attack of that malady.

Seaford, the place in which I practised for three-and-thirty-years, is a small town built upon a dry bank, bounded on the south-west by the sea and on the other three sides by portions of the South Downs. Its inhabitants are generally very healthful, are very rarely affected with intermittent and never with remittent fever. But about two miles to the eastward flows the little river Cuckmere, through a narrow alluvial valley, on the eastern side of which extends for about two miles from the sea, the parish and village of West Dean; and about three miles towards the west the river Ouse flows into the sea at Newhaven, after running through a valley of greater extent than the former, studded on each side with villages, five of which are within four miles of its mouth. Of all these places I was for many years the medical attendant; they are all and at all seasons particularly subject to ague, and all, but most especially the former, occasionally visited by autumnal remittent. Whether the two classes of disease are produced by poisons specifically different, it is of course impossible for me to say, but it seems certain that they both proceed from the exhalations arising from water in which the matter of decayed vegetable is largely contained; and I am rather inclined to think that the difference of type depends upon some peculiar modifications of the same noxious gases, either proceeding from a greater or less degree of concentration, or from a different relative proportion of the constituent parts of the compound; thus to take a familiar illustration from chemistry we might perhaps say that a prot-hydrate, an hydrate, a bis-hydrate and a per-hydrate of carbon, or whatever else it may be, may be the causes of quartan, tertian, quotidian and remittent fevers. I am led to come to some such conclusion as this, from an observation which I have made that the fevers of the same period are almost always of the same type, proving that the character of the disease is not the effect of accident, one man picking up a quartan in one field, and another man a tertian in the next, but that all have either tertians, or quartans, or quotidians, or remittents, according, as it should seem, to the peculiar combination of the noxious matter which may at the particular season be mixed with the atmosphere of the locality. Of these combinations, that which produces tertian ague is not only the one which most commonly prevails, but is also the one which is capable of being conveyed without the loss of its power to the greatest distance from its source, while remittents are as well the most rare and the most completely endemic. Thus I have known agues, especially tertians, extend themselves to places far beyond the accustomed precincts, while I have found this to be so very rarely the case with remittent that where a solitary exception has occurred I have been led to think that the patient has not found the poison in his own atmosphere but has imbibed it in its native domain—an opinion which, as far as I am myself concerned, I am satisfied to be correct. Whatever might be thought of the hypothesis which I have here advanced, of the general correctness of the facts with which they are mixed, or upon which they are based, I am ready to vouch, and I thought them sufficiently important to be enumerated here while speaking of the causes of remittent fever.

The predisposing causes are those which are usually enumerated as producing a predisposition to continued fever, and consist generally of all such things as depress

the powers of the system—as previous ill health, lowness of spirits, exposure to cold and damp, long abstinence, and especially a poor and insufficient diet. You will smile if I enumerate the malt tax as one of the predisposing causes of remittent fever; you will smile too at a predisposing cause enumerated very properly, I have no doubt, by an honest old shepherd of my acquaintance, who said that these agues and fevers had been vastly more rife since they had put a stop to smuggling; for, said he, we used every now and then to get hold of a keg, and after a good slice of pork and a pint of small beer for our breakfasts, we used of a cold or foggy morning to toss of a glass of hollands or brandy, and then set off to our work, bidding defiance to all the agues and all the fevers in the parish. I am satisfied at all events that the exposure to the morning air in such situations as I have been describing, without having previously taken something in the way of nutriment or stimulus, is a very injudicious practice, and one against which I have always guarded my patients. I proceed now to the symptoms—but let me pause for a moment. I am about to give the characters of a disease which is talked of it is true as being one of the three classes into which fevers have been divided, but of which even the teachers of medicine say but little; which the greatest numbers of practitioners scarcely admit to be a denizen of our climate; and which many of those who have witnessed it have confused either with ague or with typhus. Whether it may be a disease of a comparatively modern date it is not for me to say, but certainly it has occurred in my practice very much more frequently and severely during the last thirteen than it did during the former twenty years, while ague has been on the whole comparatively less frequent and less severe. Of this latter circumstance, although I have noticed the fact, I am not sure that I ought to speak with much authority; perhaps at all events I ought not to couple the assertion with that of the greater frequency of remittent; perhaps the more powerful agents that we now employ—perhaps the introduction of quinine alone—may account for the comparative infrequency or mitigated violence of ague. However this may be, the facts I shall have to relate to you relative to autumnal remittents will, I trust, convince you, not only that it is an indigenous disease, but that it is one which, although its influence be confined within a narrow range, maintains within that range so distinct, so important, and so powerful a character as to make it worthy of a greater degree of notice than I think has hitherto been bestowed upon it. The essential symptoms of remittent fever are those which generally attend upon fever of every kind. Its accession is marked by a great depression of the powers of the system, by rigor, loss of appetite, &c., so that it may be somewhat difficult at the commencement of the attack to say whether the patient may not have an intermittent, or be suffering under incipient typhus. For the most part, however, though the distinctive characters be often finely shaded off, we may affirm that the rigor in remittent is of longer continuance, but of a less violent character, than that which accompanies ague, while on the other hand it is much more severe than that attending on continued fever. In myself it continued for two days and the intervening night; for though when covered up warmly in bed I was at times extremely, even painfully, hot, I could not move myself, or admit the slightest portion of air, without producing a violent chill, amounting almost but not quite to the shivering fit of an ague. Together with this, there exists generally an aching pain in the loins, and in all the limbs, but especially in the lower extremities, and a sense of tenderness extending over the whole of the frame, even to the extremity of the fingers and toes. At length the rigor, after an indefinite period, having passed off, a severe state of febrile excitement takes place, either commencing at, or encreasing up to, a late hour of the night. At this period the skin becomes exceedingly hot and dry, the thirst is most distressing, the pulse very rapid, hard, and full, the head becomes exceedingly painful, and the functions of the brain are very considerably disturbed. This state continues for many hours, and it is not till towards the morning that perspiration comes on, and that the febrile symptoms begin to abate. The sweating is very profuse, and continues a very long time before the frequency of the pulse becomes much diminished; and when at length the most perfect remission takes place, it is evident that the diseased actions are merely alleviated, but by no means suspended or removed. The pulse during the early remissions merely descends below 90; and though, perhaps, after a few days we may get them down to 84 or 85, the disease will often run on, even under generally favourable circumstances, for ten days or a fortnight, before we can procure a remission so considerable as to allow them to sink below 80. This imperfect abatement of the symptoms is but of short duration. Very soon after the cessation of the sweating stage, which either ceases spontaneously or becomes checked by a removal from the bed, or by some moving or change of clothing, the sense of heat gradually returns, and the pulse somewhat increases in frequency, and at length towards night again, some degree of chilliness comes on, which, though not always amounting to rigor, is generally attended with great coldness of the extremities, especially of

the feet and legs, and frequently of the point of the nose; and this as before is succeeded by the raging fever of the night, and the profuse perspiration of the morning. Amongst the essential characteristics of this disease I ought to dwell especially upon the great disturbance of the digestive organs, accompanied frequently by distressing sickness, and always by a perfect loathing of food, and by a particularly thick and dirty coating of the tongue. In enumerating the above train of symptoms, I have unavoidably mixed up those which are incidental to all the three classes of fever, with several which are peculiarly the characteristics of remittent; but amongst these there are three upon which I should particularly dwell as forming the best diagnostic; 1st, the rigor or chilliness; 2dly, the delirium; and 3dly, the remission. The rigor accompanying the accession of the disease, I have already pointed out as being less severe than the shivering fit of an ague, but decidedly more marked than any thing which is usually seen in an attack of continued fever. It is true that in the commencement of an intermittent we frequently have neither the violent shivering nor the perfect interval which are its decided characteristics; but after, perhaps, a second paroxysm, the disease assumes its distinctive characters in both these respects, while in remittent, after the disease is fully formed, the cold stage scarcely amounts to rigor at all, though it is still sufficiently marked to enable us to distinguish it from the evening exacerbation of a continued fever. The delirium of remittent fever is of a peculiar character, and is easily distinguished from that of ague or of typhus. In the first place, in the ordinary attacks of ague there is little or no delirium; in some very severe attacks there is some delirium during the height of the hot fit, but it rarely forms a prominent feature of the disease. In typhus, on the contrary, we know it to be one of the most prominent symptoms, but it rarely occurs in the beginning of the attack; it comes on gradually; after a few days it gets worse, as the disease advances; becomes sometimes extremely violent, and the patient at length sinks into coma, or into that low muttering state which so often proves the precursor of death. It may be somewhat increased during the exacerbations of the night, but when once it begins it continues generally without much interruption until the patient die or improve. Not so in remittent. It is hence an early attendant. It comes on frequently even in the midst of the earliest paroxysm. It obtrudes itself on the patient when he seeks for sleep, and it often appears to occupy its place, running on during the hot stage like the dream of the sleep-walker, whose faculties would appear to be dormant while the eyes are open, and the tongue at liberty, and even the limbs in action. In some cases it is so like an ordinary wandering in sleep, that if the patient be roused he becomes immediately sensible, and relapses when he is again allowed to sink into the same imperfect slumber; at other times, though in other respects the same, it is impossible to arouse the patient, and the delirium continues until the sweating stage be fully formed, when it generally abates, although it often happens that even during the remission, sleep is either prevented, or accompanied by this wandering of the mind. There is something in the delirium itself different also from that attending on typhus; it is not of so wild, so maniacal a character; there is more of self-consciousness about it; a man is not taken out of himself so much, but retaining his identity gets into some extraordinary trouble that bears some relation to the station that he fills, and to the general circumstances of his life. A labouring man, for instance, will get into trouble about his work; his ploughs will break, his horses will be restive, his oxen dull, and his helpmates disobedient to his orders; and while he is calling to one, and railing at another, and tossing and toiling to put things into a proper state, he breaks into a sweat, apparently from the exertions he has been making, but in reality because the period for the perspiration has arrived. Of the remissions I have spoken above, and I have shown them to be very different both from the perfect intervals of intermittents and the slight abatement of the febrile symptoms, which takes place in the morning in typhus, which is not only far less complete, but which is also not preceded by a sweating stage. They are not merely different from the intermissions of ague, inasmuch as they are less complete, but also because even the most complete remission is with so much ease put to an end, the fire which had not been quite extinguished being relighted by the application of any stimulus, whether in the form of diet or of inappropriate medicine.

Having now described the essential, I proceed to the consideration of the accidental symptoms—those which do not occur in every case, but are in different patients intermixed with each other in every variety of degree. One of the most distressing of these is the continued roaring or ringing sound, of which most persons complain, and which is greatly aggravated by the too early administration of stimulating food or of powerful tonic medicine. This noise continues generally until the disease be entirely subdued, being of course somewhat worse during the exacerbations of fever. The vomiting, which I have before mentioned, is often a most prominent and distressing symptom, occurring frequently night after night, large quantities of dark green bile being gene-

rally thrown up. Considerable dyspnœa sometimes occurs during the exacerbations, accompanied by a violent struggling and palpitation of the heart, and indeed of all the arterial system, so that the patient is conscious, not only of the pulsation of the brain, which happens not unfrequently in common violent headachs, but of the beating of the pulse in almost every part of the body. There is very frequently, during the progress of the disease, pain and tenderness of the stomach, the liver, and the spleen, which also is sometimes enlarged; there is also very often a partial or general tension and tenderness of the abdomen, the sense of distension being sometimes very painful to the patient. In a few instances, I have seen an œdematous swelling take place in one or both of the legs. The urine is generally very high-coloured and scanty. The perspiration has usually a very strong and somewhat disagreeable smell. There is one more circumstance which I ought to mention perhaps here, though it is not a symptom but a consequence of the disease, and that is the very long-continued state of debility, accompanied by paleness of the face, by flatulence, and other dyspeptic symptoms, which frequently succeeds to an attack of remittent, and which renders the sufferer unable for many weeks to follow any laborious employment. I shall conclude this part of my subject by observing, that the appearanees of extreme illness, the great sufferings of the patient, the height of the fever, the delirium, the sleeplessness, the utter loss of appetite, and the consequent emaciation and debility, all contrasted as they are with the almost certainty of recovery, if a proper mode of treatment be pursued, form an extraordinary part of the character of this disease, and that this can be only accounted for by the great relief which the system experiences from the frequent remissions, during which it recruits as it were its powers, and becomes enabled to contend with the violence of the succeeding paroxysm; and leads me to the prognosis which is of the simplest kind, depending only upon the greater or less completeness, duration, regularity, and frequency of the remissions. For it frequently happens, in the early stages of the disease, or afterwards if the proper mode of treatment be not pursued, that the paroxysm will last far over the twenty-four hours, and that two or three days will pass away without a single remission; and thus it is that the complaint may be allowed to degenerate into typhus, or, what is perhaps more likely, that the long continuance of the violent arterial action would bring on inflammation, either of the stomach, the liver, the intestines, the peritoneum, or the spleen, against which organ the enemy seems especially to aim its attacks.

I proceed now to describe the mode of treatment; and I approach this subject with a degree of confidence proportioned to the suecess with which my efforts have been crowned. A very great number of cases have fallen under my care; in one autumn, and in one parish, I had above seventy, most of them of a serious, if not of an alarming description; and although a medical praetitioner accustomed to the disease may be inclined generally to give a favourable prognosis, the patients themselves, as well as their friends and attendants very frequently feel a great degree of alarm. In this, however, I do not sympathize, for amongst the great multitude of cases which I have attended, except only a boy, who died in an epileptic fit, to which he was subject, a child that had diseased mesenteric glands, and three other cases, in which there had been the grossest neglect at first, and inattention to my directions afterwards, I believe I never lost a patient. Having heard and read so little about remittent, having never been led to consider it either as a disease of importance, or as one whieh I should be likely often to encounter, I own that when I was first thrown amongst it, I was somewhat at a loss, and was only led to form a deeided plan by an attentive observation of the various phenomena, and of the injurious, the useless, or the advantageous effects of the various methods which I was at different periods induced to employ. Of so Protean a character, also, is the disease itself, that in the early years of my praetice it was not always that I could discover its identity amidst the various forms and modifications in which it presented itself. But although I was thus sometimes led astray, there were in the feelings and the appearances of the patient so plain a warning of the wrong, and so constant a demand for the right, that I could not, with that careful observation which I have ever held it to be my duty to pay to the diseases entrusted to my charge, be drawn into any very serious errors, although it was perhaps a considerable time before I had reduced my observations into that systematic form which I am now about to describe. Considering the disease, as I do, to be a disease affecting the whole body, through the medium of the nervous system, and perceiving no inflammatory action that challenged me to the attaek; finding, indeed, in its marked exacerbations and remissions a character inconsistent with the regular progression and permanent retreat of inflammation, I have never made use of the lancet as a means of cure, nor, from what I have seen of the patients of others who have used it, have I ever felt regret that I had not adopted that somewhat fashionable plan. It is true that in some very few instances I have had occasion to take blood during the progress of the disease; in one instance, indeed, I recollect, that in eonsequence of an acute hepatitis, which sprung up sud-

denly upon us, I felt obliged to bleed largely two or three times; and by that I subdued the inflammatory attack, but not the remittent fever, which ran on afterwards as if it had never been interrupted. Of emetics, another favourite remedy, I cannot speak very favourably. For a considerable time I was in the constant habit of employing them, but as I found them followed by no particular advantage, and as I thought the usual very irritable state of the stomach somewhat opposed to their use, I have of late years thrown them aside. I have, however, generally combined with my first dose of calomel a dose of antimonial powder, or, what I have preferred in my general practice, as a more manageable preparation, from six to eight grains of a powder, composed of one grain of emetic tartar and fifteen grains of prepared chalk. This dose pretty frequently stimulated the stomach to discharge its contents, but did not cause that long-continued and harassing retching which frequently attends the administration of a regular emetic. This, then, is the commencement of my plan of treatment—the giving of antimony combined with a pretty large dose of submuriate of mercury, a dose varying in an adult from six to ten grains. This I follow in a few hours with a very active purge, consisting generally of senna or powdered jalap, with a strong solution of sulphate of magnesia. This plan I have felt it necessary to follow during the whole progress of the disease. Few nights pass in which I do not administer three or four grains of calomel, and even fewer days in which I have not repeated the aperient. So palpable, indeed, is the benefit derived from the action of purgatives, that they are frequently anxiously called for by the patient, and the directed period of their administration anticipated by several hours. The distressing sickness is relieved by nothing so much as by the brisk action of a purge, and I have known it at once relieve the most painful delirium, and arouse the patient from a state of stupor almost amounting to coma. The purging must be continued then day by day, until the tongue become clean, and the dark, green, and excessively fœtid alvine excretions have assumed their more healthy character; and then, and not till then, may you pronounce the enemy to be about to take its flight. In some cases attended by extreme sickness, it has been absolutely necessary to substitute pills for the saline purgatives; but I have generally observed that the more drastic purgatives which are given in pills, such as camboge, colocynth, aloes, &c., are much less advantageously administered than those I have mentioned above. I have indeed, if by chance I have given them for convenience sake, or when I have thought a regular purgative draught not necessary, found them cause an increased degree of tenderness of the abdomen, and produce a corresponding addition to the coat upon the tongue. With respect to mercury, although its use as an alterative and aperient is very palpable, I have not found it, when carried far enough to produce ptyalism, arrest the progress of the disease, as it so frequently does in continued fever. Another of the most evident indications of cure, is that of shortening the duration of the cold stage, if that be at all marked, by keeping up the animal heat, either by a warm room, or by additional bed-clothing, or by a plan which I sometimes found very useful, and which, if I had never had occasion to apply heat in a case of cholera, I should have adopted in lieu of the more troublesome use of hot water or vapour baths; and that is the simple introduction of a warming-pan between the upper blanket, and passing it to and fro over the body as long and as repeatedly as it may be required. I have known this very speedily stop the shivering fit of an ague. The next consideration is that of bringing on as rapidly as possible the perspiration; and this is, in general, a consummation so devoutly wished by the patient, in consequence of the great relief that it brings with it, that he flies with eagerness to the medicines which he finds to have a tendency to produce it. The medicines I have usually employed have been the liquor ammoniæ acetatis, with small doses of antimony, if that be not forbidden by urgent sickness; where that symptom occurs, not only must the antimony be omitted, but an effervescing saline medicine, consisting of citric or tartaric acid and carbonate of soda, may be advantageously substituted for the liq. ammon. acet. Although the violent perspirations may seem to add to the debility of which the patient complains so much, I am convinced that the influence which they exert over the disease is so important that they must be encouraged, and, if possible, kept up even during the remission. I have known a perspiration so supported have the effect of entirely preventing the evening exacerbation, and of thus putting an early and effectual stop to the further march of the disease. Where there has been much tenderness about the abdomen, or any of its contents, I have seldom found it necessary to take blood either by the lancet or by leeches, but a blister I have very often applied, and that, together with the aperients and sudorifics, has generally removed those symptoms without much difficulty or delay. Where there has been great restlessness, I have often given an opiate with much advantage, but it must be combined with the diaphoretics, and must be succeeded by the continued administration of the purgatives. The diet ought to be of the mildest kind during the whole progress of the dis-

case. All stimulants, whether in the form of food or of medicine, have a tendency to increase the febrile actions, to shorten the remissions, and to drive on the disease either towards typhus or inflammation, according to the predisposition and circumstances of the patient; but I believe the greater chance is in favour generally of the latter. Under this head I may introduce a warning against the too early administration of tonics, even of the lighter kind; and most especially let me warn you not to be deceived by such remissions as may nearly amount to perfect intervals, and by that means be induced to expect a cure from the employment of bark or quinine. I have known those who, because the pulse might for an hour or two in the morning be down to 80 or 85, have flattered themselves that they have secured a sufficient intermission to authorize the trial of the above remedies, and I have invariably found mischief accrue from their use, unless, indeed, the remittent had been completely subdued. So that it is safer to continue the contrary mode of treatment a day or two too long than to begin the use of the tonics a single hour too soon. In short, I am convinced that, as a general rule, to which there are few exceptions, we may safely affirm that until the tongue become clean, whether in remittent or in ague, the employment of quinine will either be useless or injurious.

I cannot here refrain from mentioning a circumstance which shows how often we obtain credit where we do not deserve it, while we sometimes on the other hand get blame where we have fairly earned approbation. I had a patient with remittent, a gentleman advanced in years, and one whom I had long confidentially attended. He was somewhat impatient at the long continuance of the disease, and at the discipline I thought it necessary to employ. At the end of about a fortnight the fever left him; he even left his room, and I had just began to venture upon a light tonic. On the following day he had what his friends thought a relapse, and becoming alarmed, they sent for a medical gentleman residing at some distance, to meet me in consultation. During a conversation that we had on the case as we rode to our patient's, I found that he had absolutely no practical knowledge even of the very existence of the complaint, and that, calling the remissions intermissions, he maintained that as soon as the pulse was down to from 80 to 90 he would throw in the quinine. We found our patient's pulse under 70, for what he had evidently had the day before was a fit of ague. In the presence of the gentleman and his friends the practitioner incautiously, if not unhandsomely, alluded to our conversation, and somewhat triumphantly asserted his confidence in the success of quinine, a confidence which I entirely shared with him under the then aspect of the case. It was given, and the intermittent did not return. My professional brother obtained all the credit, while my friend, thinking from what had passed that the remedy might have been earlier given, absolutely withdrew his confidence from me, who had safely carried him through a severe if not a very dangerous disease. In my own case, which was an extremely violent attack, and which was a very badly managed one, partly because a medical man, but badly executes the command of "physician cure thyself," and partly because I had so many kind medical advisers that they exemplified the old proverb of "too many cooks." In my own case, quinine was given early, and three or four doses of it gave me a most violent accession of fever, accompanied by that dreadful roaring in my ears which I have mentioned above, and which never left me for two months, during the whole of which time I continued ill. The sound was absolutely terrific. It was the continued roar of a Niagara—or I likened it, perhaps, in a state bordering upon delirium, to the shouting of the immense population of a Rome, welcoming the triumphant return of a Pompey or a Cæsar. Once after this I was prevailed on to try the bark in powder. It was urgently pressed upon me, and I took, though against my own opinion, several doses. A paroxysm of fever was produced, which lasted without perspiration or remission for more than two whole days; and during that time I felt the pulsation not of the heart only but of every artery in my body. So violently was the action of the little nasal arteries increased, that they absolutely became visible to me, and I was tormented, and my eyes dazzled by the continual motion. No wonder that for five weeks I was never able to sleep. If for a moment my eyes closed, the noise increasing, or some strange or horrid image being immediately presented to my mind, I started from my transient slumber in an agitation that made me afraid to admit its approaches again. Nor is it to be wondered at that at length some degree of inflammation of the liver occurred, for which it was judged necessary to apply some leeches and a blister. I have little doubt but if I had been treated as I have treated so many of my patients, I should like them have got well in two or three weeks, instead of lying ill as I did for more than two months. In saying two or three weeks, I mean to express a somewhat indefinite term, for I have not observed remittents to have any critical periods as continued fevers have. Experience, however, has proved to me, that by a strict perseverance in the plan which I have described, we may feel every confidence that we shall see many of our patients recover in a week or ten days; and though the duration of the disease may be

sometimes farther protracted, I will venture to affirm that the cases in which our efforts shall not be crowned with success will be found assuredly to be very rare indeed.

Reviews.

An Essay on Laryngismus Stridulus, or Croup-like Inspiration of Infants. With Illustrations of the General Principles of the Pathology of the Nerves, and of the Functions and Diseases of the Par Vagum and its Principal Branches. By Hugh Ley, M.D., Lecturer on Midwifery at St. Bartholomew's Hospital. 8vo. pp. 480. London: Churchill. 1836.

THIS is a very elaborate essay, containing accounts of all preceding writers on the spasmodic asthma of infants. The author is possessed of great talent as an obstetrician, as a profound pathologist, a judicious practitioner, and a popular lecturer.

The substance of this production was published in a series of papers in one of the medical journals. The author has given a history of the first disorder, and quoted a great number of writers who have treated of it. He then gives several cases treated by himself, with the morbid appearances. According to his observations, the cause of croupal inspiration is a diseased condition of the bronchial or cervical glands, which irritates the eighth pair of nerves or the recurrent nerves. It is very remarkable that our author seems not to have tried the hydriodates of potass and iron in the many cases which he narrates, but contented himself with aperients, tonics, and narcotics. He gives a long detail of all the remedies hitherto proposed by writers, most of which are only calculated to improve the general health. This essay is, upon the whole, creditable to the author, though we cannot but express our surprise that he had not tried the preparations of iodine much more extensively than he appears to have done. Great advantage and much relief would have been afforded in many of his cases, by applying camphorated oil and opium to the nerves of the face, and to the cervical and dorsal spine, in spasmodic respiration of children, as we have observed in numerous children affected with pertussis. The profession is indebted to Dr. Ley for his discovery of the pathology of the frightful disease of which he has so ably treated.

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A Treatise on the Prevention and Cure of Pulmonary Consumption. By Robert Little, M.D., Professor of Midwifery in the Royal Belfast College, Consulting Physician to the Belfast Hospital, &c. 8vo. pp. 160. London: Longman & Co. 1836.

THIS is a very sensible and instructive work, in which its author takes a very comprehensive view of the pathology and treatment of phthisis. He has enjoyed very extensive opportunities for many years as physician to three public institutions, in observing and investigating the disease of which he treats, and he now submits the result of his long experience to the profession. There is nothing empirical, knavish, or dishonest in his production; it is not written to gull the public and take their money under false pretences; it is what it professes to be—a professional treatise. The word "cure" in the title-page led us to make this remark, because it is scarcely ever employed in respectable medical works of modern times.

Dr. Little divides his production into three chapters: 1, On the nature, causes, and symptoms, complications, progress, and termination of pulmonary consumption; 2, The prevention of pulmonary consumption; 3, The cure of pulmonary consumption.

Before we notice these different sections we deem it right to inform our readers, that the author entertains the opinion, that the prevention of consumption may be effected by proper attention to hygiene during pregnancy and infancy. He then goes on to observe on the *cure* of the disease; and for reasons we need not state, we shall quote his own words.

"With reference to the *cure* of pulmonary consumption, I have endeavoured to prove that it may be accomplished, in a great many instances, by the most simple remedies; but, although this is the case, there are very few patients who will derive any benefit from the curative means employed, because they are neither sufficiently extensive, nor used at a sufficiently early stage of the disease. I think the opinion, that consumption is incurable at every stage, has been productive of the greatest mischief, inasmuch as it has frequently induced medical men to

give up the employment of all remedial measures, and submit the patient to his fate, when there was still a good chance of effecting a cure, had those of a proper kind been used only in a suitable manner. It could not possibly be expected that the proportion of cures would b very large, no matter how soon, after the formation of the tubercles in the lungs has taken place, the necessary treatment is carried into effect. I think, however, that even a small proportion should be sufficient to encourage the physician to the greatest activity in the employment of the requisite remedies."

In the first chapter the author gives a most comprehensive review of the modern opinions upon the pathology, etiology, symptomatology, and termination of phthisis, and differs on many points with the best authors, whether national or foreign, on the subject. This will appear by the following extract.

"The formation, growth, and conversion of pulmonary tubercles into a purulent state, are all generally preceded, accompanied, or succeeded by disease of the natural tissues of the lungs; but, as to the amount of disease or the tissue which is most affected, there is the greatest difference in almost every successive case to which the physician directs his attention. It would therefore appear, that, although consumption may be considered as a malady proceeding from the development of certain morbid growths in the place of some of the natural tissues or secretions of the lungs; yet it will be found, in every instance, that these organs are also affected with various other diseases in connexion with that of a tuberculous kind. It is, for instance, in the disease in question, a very rare thing not to meet with bronchitis, pneumonia, or pleuritis, either singly or conjointly, at some time during its progress; so that different disorganizing processes may be going on at the same time. It is, therefore, from the circumstance of the pulmonary organs presenting the most opposite morbid appearances in fatal cases of consumption, not by any means wonderful, that the greatest difficulty should have arisen as to the relation which these had to each other."

He considers phthisis a form of scrofula, and then proceeds to describe the origin and development of tubercles, in which he differs, more or less, from Laennec, Clarke, Carswell, &c.

"Tubercles present the greatest difference in their appearance in different situations of the body; and this is even the case, in the same situation, at various stages of their growth. In the lungs they are frequently to be met with of not greater size than that of the head of a small pin; and at other times, they will vary in size from that of a pea to a hazel nut. But again, instead of the tubercular matter assuming the round form, it is secreted in large irregular masses, and thus constitutes what has been denominated tubercular infiltration. While there is the greatest variety with respect to the magnitude of these morbid growths, there is also the greatest variety with reference to their colour. They have, for instance, sometimes a semi-transparent aspect, and at other times an opaque. It would appear that their transparency diminishes in proportion as they increase in size; so that, after they have acquired a certain degree of development, they gradually begin to assume an opaque appearance. It would, therefore, occur to me that, while they are of a very small size they are always possessed of a degree of transparency. This has been, at least, the case in every instance where I have had an opportunity of investigating the subject at a sufficiently early stage of their growth. In several instances I have had an occasion afforded me of examining recent cases of tubercular infiltration, and I have invariably found the solidified mass to present a considerable degree of transparency. The fact is, I am of opinion, if I can judge accurately from the number of patients which I have had an opportunity of examining while affected with the morbid formations in question in an early stage, that, no matter what shape they assume, they are, in their primary state, possessed of a certain degree of transparency.

"While there is the greatest diversity with regard to the colour and magnitude of pulmonary tubercles, there is also the greatest variety in their degree of consistence. They are, for instance, sometimes almost as firm as cartilage, and at other times they are possessed only of a very slight degree of density. I have always found, when an opportunity has been afforded me of examining them before any reduction had taken place in their original density, that those which were situated at a considerable distance from each other, were possessed of a much greater degree of compactness of texture than such as were closely connected together. I am also led to believe, that they are considerably more solid in persons from thirty-five till fifty years of age, at the same stage of their growth, than they are from fifteen till thirty-five. In youth they would, in fact, seem to increase in size with much greater rapidity than they do after life is somewhat advanced; and I believe it is an almost uniform law, both with new animal and vegetable formations, that, in proportion as their growth is quick, in the same proportion their texture becomes less and less firm. Now, if the same be applicable to the morbid growths in question, it must appear that in

those cases where their increase in bulk is slow, their density will be, during their primary stage, much greater than when they grow in a more rapid manner."

He differs from Laennec, who concluded that tubercles were most frequently found in the right lung, and from Louis, who said they were in the left, as our author had discovered them as often in one organ as in the other. He agrees with former writers that tubercles exist most commonly in the superior lobes, especially of young subjects; but in his opinion, they are most frequently found in the inferior lobes of aged persons. He next notices the seat of those morbid growths.

"It was the prevailing opinion amongst physicians, till within the last few years, that tubercles were formed exclusively in the cellular tissue of the lungs. This was the opinion held by Laennec, and some others, relative to their seat. I am quite convinced, they are frequently formed in the cellular tissue; but, while this is the case, I am at the same time satisfied, that their formation frequently occurs in the air tubes and air cells. This is, however, more especially the case with the latter. It would seem to me, altogether, relative to their formation, that it may take place at the same time in the air tubes, air cells, and cellular tissue.

"Dr. Carswell thinks, the seat of the morbid deposits in question is the air tubes and air cells. Notwithstanding the great importance which is to be attached to any opinion expressed by that gentleman, with regard to the various morbid affections of the pulmonary organs, still, I think, his opinions relative to the disease which I am now considering, are any thing at all but correct. In cases of tubercular infiltration, I believe, all the tissues of the lungs which I have just mentioned, may become the seat of the morbid deposits at one and the same time. I am of opinion, however, that, when the tubercles assume the distinct form, it is more particularly in the cellular tissue their formation takes place."

We must pause here for the present, and shall resume our review in our next.

The London Medical
AND
Surgical Journal.
Saturday, April 2nd, 1836.

METROPOLITAN FREE HOSPITAL.

We perceive, by the public prints, that a Metropolitan Free Hospital has been founded by the highly respectable governors who retired in disgus from the Institution in Greville Street and we think their "Address to th Public" will be perused with pleasur by every friend to charity, and ever enemy to jobbing.

"Amongst the numerous charitabl institutions with which this metropo lis abounds, there is none in favour which the founders may with so muc confidence appeal to the public, as th Metropolitan Free Hospital.

"Its object is to grant immedia relief to the sick poor of every natio and class, whatever may be their di eases, on presenting themselves to th Charity, without letters of recommen dation from governors; which are all times procured with difficulty, ofte after a dangerous delay, and too fr quently cannot be obtained at all b very many applicants, and more esp cially by destitute strangers, who mu necessarily be unacquainted with governor of any public charity, whom they might apply.

"To remedy these inconvenienc and defects in most of our public i stitutions, and to promote the sacr cause of charity, the Metropolitan Fr Hospital has been founded, to affo immediate medical and surgical aid all applicants, *whose only recomme dations are—poverty, destitution, an disease.*

"As in consequence of free admi sion the number of poor objects see ing relief must necessarily be ve great, the committee of this Chari earnestly appeal to the generosity the public for assistance and co-oper tion in diffusing the inestimable go of so comprehensive and valuable institution. They are also most a xious to be enabled to receive with the walls of their hospital, a certa number of patients affected with u gent diseases of any description, whi require immediate and constant atte tion.

"Two physicians, and three su geons, of high respectability and l lent, will be in regular attendance the Hospital; and it is gratifying state that their valuable services,

well as those of the committee of management, the treasurer, and secretary, will be *gratuitous*.

"It is intended that the governors at large shall appoint the committee of management, as well as all officers of the establishment. That the medical officers shall not be members of or interfere with the committee, and that no one of the committee shall supply the necessaries which may be required for the use of the institution."

Our readers have observed, in our advertising sheet (March 19th), the charges of jobbing made by the retired members of the committee, and by the governors of the Greville Street institution, "for the cure of *malignant* diseases;" ex. gr. blue cholera, cancer, fungus hæmatodes, &c.

To the statement to which we allude, the present upright and most respectable committee have given a wholesale denial, and alleged that the old and best supporters of the charity who retired, had sanctioned, and only exposed the abuses, when they found their names excluded from the present list of the committee of management.

These, and many other allegations, are wholly destitute of truth. The retired portion of the committee and governors, as well as the four medical officers who resigned with them, and who belonged to their body *ex officio*, had for months, and some of them for years, felt the utmost disgust at the jobbing in the institution. They opposed it times out of number in one shape or another, but they were generally out-voted by the self-interested; and a quarterly or a general meeting was packed to reverse their decision, and carry the point in question. Thus a secretary was first appointed, then he was to have a salary of fifty pounds a year, which sum, on account of the smallness of the funds, was opposed, but carried at a second or third friendly meeting, and finally, though declared exorbitant at a general meeting, was granted by a majority; and thus "upwards of one sixth of the average income of the Free Hospital" was frittered away, instead of being expended with the most rigid economy for the relief of the sick poor. Other instances of as gross mismanagement of the funds might be mentioned, and among these, "that orders have been given by members of the committee, and on several occasions executed by the same party that gave them, at an unfair and at an exorbitant charge." It was to persons of this stamp we alluded in the following sentence, which has been introduced into a puerile and stupid circular of "a governor of the Free Hospital" a few days since, in a wretched defence of the late and present management, and against the founders of the Metropolitan Free Hospital. We should treat this attack with silent contempt, had we not promised to prove the truth of our former statements.

"The loss which the Free Hospital has sustained by one of the physicians (Dr. Ryan) having 'separated himself altogether from its concerns,' may be fairly estimated by a perusal of the following extract, taken from a publication (of which he is proprietor and editor), wherein, remarking on the occurrences which took place at the last general meeting of this hospital, he very freely gives his opinion of governors and subscribers to hospitals and dispensaries in general.

"'We are extremely glad at the result of the proceedings: it forcibly shews the iniquitous conduct of hospital and dispensary governors, some of whom are the veriest hypocrites and humbugs on the face of the earth; and well they may be, when physicians and surgeons degrade themselves by fawning on and canvassing such persons. We shall not dilate on this theme at present; but we may, on another occasion, prove that these persons are, under the mask of charity, the veriest tyrants in society.'—*Ryan's Medical Journal, Saturday, March* 5, 1836."

Now what does this extract prove for the governor, or rather impotent anonymous scribbler, whose miserable epistle contained it, but that *some*

governors of the public charities are hypocrites, humbugs, and tyrants, under the mask of charity; and that he and *some* of his party acutely feel the force and truth of the observation. We are much obliged to him for reminding us of the subject, and we shall now proceed to elucidate it for the gratification of all whom it may concern.

We h aveinvariably remarked that real Christian charity induces the majority of governors and subscribers of hospitals and dispensaries to contribute their support; but that hypocrisy, humbug, vanity, jobbing, or some other unworthy motive, influences others.

Thus Mr. Brickbat, the builder, pays a guinea a year as subscription, obtains twenty or fifty times the value in medicine and medical aid for his workmen, servants, and poor neighbours; has his importance inflated by his privilege of granting letters of recommendation; he gets on the committee, and if there is any job in his way to be done in the institution, it is given to him as a matter of course, at fifty or one hundred per cent. more than he ought to receive, the motto being, with some of his brother committee men, "ca me, ca thee," and all this he calls charity. Moreover, he becomes acquainted with many influential individuals on the committee —clergymen, commercial men, &c. &c. and by fawning on them and others, he obtains a contract for building a chapel of ease, or a rectory, or a mansion, &c.

Messrs. Rhubarb and Jalap, the druggists, supply the *charity* at thirty or forty per cent. over the market price; and they too are most charitable governors and friends of the poor.

Mr. Foolscap, the stationer, supplies his wares on the same system, and so do many other persons who vend the necessaries required by charitable institutions. Are not such persons, we beg to inquire, hypocrites and humbugs?

But the great majority of men in trade are too honourable and charitable to traffic in the funds allotted to the relief of the poor and destitute Among these are most governors, an the founders of the Metropolitan Fre Hospital, who have wisely prevente any member of their committee fro supplying their institution with neces saries or goods of any kind; and thu have effectually protected the funds o the charity against misappropriatio

We have next to prove the tyrann of some of the governors of hospital and dispensaries, who outrage righ reason, and justice, by their conduc A better example cannot be adduce than that afforded by some of th governors of the late Free Hospita by bringing a number of non-subscrib ers to their meeting, and causing ther to vote for the expulsion of two of th medical officers, for an alleged breac of medical etiquette, forsooth! whic was pronounced no breach at all, b the only competent judges of the mat ter—the Royal College of Surgeons Are not such governors or subscribers or intruders who had no right to b present, and who illegally expelle two medical officers elected by th ballot of real governors, the veries tyrants, under the mask of charity Many other examples of tyrann might be adduced, but one or tw shall suffice.

Thus, some of the guinea subscrib ers of dispensaries and infirmarie get themselves appointed on the com mittee of management; and afte jobbing as much as they can, the next behave with the grossest inso lence and impudence towards th medical officers. They listen to ever trumpery tale of the patients whon they recommend; and perchance mak a formal complaint against a medica officer, which falls to the ground th moment he answers it. They also i some institutions take upon them selves to decide what cases of disease require to be visited at the residence of the afflicted, and send an insolen mandate to the medical officer, order ing him to attend directly!!!

Now when we consider the ines timable value of the services of the medical officers, and the utterly in-

ignificant co-operation of some of hese paltry subscribers in the work f charity, we cannot resist the conlusion that the conduct of the latter s too often rude, insolent, and tyranical under the mask of charity. In iving this very brief and imperfect ketch of the abuses in our hospitals nd dispensaries, we do not allude to ny particular institution or individual, though many of both deserve to e exposed; but we think the time as arrived, when such abuses ought o be corrected, and when charitable nstitutions ought not to be liable to uch charges. The establishment whose name heads these remarks cannot be injured by misuse of the funds and other abuses; and its supporters eel sufficient reward for their contributions, in the high gratification of knowing, that they co-operate in relieving the afflicted poor, without the temporal or personal vanity of giving letters of recommendation, and without being guilty of the inhuman atrocity of wasting or misapplying the funds entrusted to their management, for the aid of their unfortunate fellow beings, of all nations and countries.

We might dilate on this subject, and prove that the governors of our public charities too frequently recommend persons not objects of public relief, to the great injury of the really destitute, and to the infringement of the rights of junior medical practitioners.

We are, however, thoroughly convinced of the great value of dispensaries, when properly managed, and we entirely agree with the following very graphic account of such institutions:—

"The utility of Dispensaries has been confirmed by experience, and is every day more and more felt and acknowledged. By means of *them* the indigent Sick find comfort and relief *at their own habitations*, without being taken from the bosom of their families, as was the case before the existence of such Institutions.

"It must be allowed that Hospitals are Establishments of great public use, yet they would be overcharged with the Sick, if it were not for Dispensaries; and when it is considered that numberless cases occur where it would be distressing, and even cruel, for a Father or Mother labouring under disease, to be separated from their children, or their children, under the same affliction, to be taken from their homes (and cases frequently occur in which removal would be fatal) and sent into an Hospital—there can be no doubt of the utility of the benevolence which goes to support a Dispensary.

"Every person, however moderate his income, has an opportunity of lending his aid, as the subscription is a trifling sum, when compared with the many acts of benevolence which every subscriber has in his power to render the afflicted, even in the course of *one year;* it is a sum which every one must cheerfully pay, who duly considers that he is giving it for the mitigation of pain, and for the succour of enfeebled bodies and sinking minds —for the preservation, perhaps, of some parent of an helpless family, or for that of an only child agonized under the eyes of its bewildered parents. Whatever may be the particulars to which the bounty may tend, let it be remembered, in general, it goes to the relief of the helpless indigence, which might otherwise sink hastily into the grave, under the increasing weight of sickness and despair."

We are satisfied that our readers, with scarcely an exception, are the best friends of the sick poor, and will aid us in advancing the prosperity of the Institution which gave rise to the preceding observations.

LONDON MEDICAL SOCIETY.

Monday, March 28th, 1836.

DR. WHITING, PRESIDENT.

Ulceration of the Stomach.

Mr. Crisp exhibited a specimen illustrated by the following case:—A girl, aged 15, died last Thursday. Up to the period of two months before her death, she had been in perfect health. About two months before she died, she was taken, after dinner, with a fit of vomiting, which continued to occur until she died. The vomiting did not come on after any other meal, even if she eat meat for supper; sometimes she was free from it for two or three days together. She complained, a short time before she died, of pain in the stomach; she had never menstruated, and her mother thought the pain arose from the peculiar period of life, particularly as she looked rather paler than usual. On Wednesday last, she ate for her dinner eleven oysters, and some bread and butter, with half a pint of small beer, and appeared as well as usual. About an hour after dinner

ner, she complained of severe pain in the stomach; it was so severe that she threw herself on the floor with the agony. She was removed to bed, where she slept three or four hours. On awaking her at the end of that time, she still felt uneasiness in the stomach; during the night she was very restless and thirsty, and she drank large quantities of water. At four A. M. her sister, with whom she slept, was desirous to call her mother; but she said she should soon be better; at 6 o'clock, she was found dead. Mr. Hughes, of Camberwell, was called in; the extremities were cold, though the trunk still continued warm. The day before she died, a neighbour had noticed her once or twice put her hand to the region of the stomach, but she did not then complain of pain.

On examining the body ten hours after death, it was muscular and plump; the countenance was pallid. In the cavity of the chest there was three or four ounces of serum; the pericardium contained about an ounce. The lungs were gorged with a dark-coloured bloody serum; the structure of them was healthy.

Abdomen.—The intestines were of a dark brick-dust colour; the folds of the small intestines were agglutinated together, but were easily separated; in the peritoneal cavity there was a large quantity of fluid, about three quarts, which, when pressed on, passed out of a cavity in the small curvature of the stomach, the posterior portion of which was strongly adherent to the colon. The mucous membrane of the œsophagus was red and easily detached; the liver was unusually white on its external surface; internally its structure appeared healthy. The intestines were healthy, but the mucous membrane was rather softer than natural. There was no redness, except a slight blush in that of the duodenum.

The ulcer in the stomach had a peculiar hardness and thickening round its margin; there was no other symptom of disease in the stomach. Two years ago, Mr. Moore had brought a case before the Society of a somewhat similar character, in which it was found the patient, a young woman, had taken oxalic acid; in this case a chemist had considered that he had detected oxalic acid in the fluid which had been removed from the patient. The great practical question in the case appeared to be this: Could an ulcer, of the description illustrated in this case, take place recently, that is, within the time the acute symptoms took place, which was about twelve or fourteen hours previous to death? There were many cases on record in which ulceration of the stomach had taken place without the presence of poison. A case was on record of a girl, 16 years of age, who had been the subject of dyspepsia for two years, and who, at the end of that time, died suddenly; and when she was opened, an ulcer of a similar kind to the one in this case was observed. These cases appear to occur generally in young females, between the ages of 15 and 21; the ulcerations, too, generally occur at the lesser curvature of the stomach, near the cardiac extremity.

Mr. Greville Jones had no doubt that the patient whose case Mr. Crisp had related, had laboured under chronic inflammation for some time; there was often, in cases of that description, no other symptom present but vomiting; he felt satisfied no poison could produce such a hardening as was present round this ulcer. The ulcer was different from those generally seen in the stomach; but there was no reason why the stomach should not be liable to different kinds of ulcerations as well as other parts of the body. The one in question was remarkable for the induration around it, and from the extreme fineness of the edges, which seemed to have been cut with a knife; it was a peculiar kind of ulceration, seldom met with. Mr. J. considered the symptoms which came on the day before the death of the patient, were the result of partial rupture of the peritoneal coat of the stomach, and that its contents had partly escaped. In Mr. Moore's case, in opposition to this, there was considerable inflammation of the mucous membrane of the stomach in patches; here the mucous membrane was healthy.

Mr. ——— agreed with Mr. Jones, that the ulceration in Mr. Crisp's case was the result of chronic inflammation. It was not always that these affections occurred in young persons. He had met with a somewhat similar case in an old lady who had been slightly ailing with dyspepsia for about three years; she was 63 years of age, and an inveterate dram-drinker; she died suddenly; the stomach was found thickened; and an ulcer in the cardiac region, which had no inflammatory blush round it; but there was inflammatory patches about the other portions of the stomach.

MEDICO-BOTANICAL SOCIETY.

Wednesday March 23, 1836.

DR. MORRIS IN THE CHAIR.

Cold Infusion of Senna—New properties detected in Opium, by M. Pellitier—Conine.

On the table were exhibited specimens of the different kinds of senna.

Dr. Sigmond in making some observations upon them, remarked that the Egyptian senna, as lately imported into this country, was purer than it has ever been; this might probably arise from the fact of the pacha of Egypt wishing to make it an extensive article of commerce, and therefore more trouble had been expended in the cultivation, &c. of it. Dr. S. called the at-

tention of the Society to a cold infusion of senna which had lately been made by Mr. Battley; this infusion is made simply by macerating the leaves of the senna in cold water; this preparation retained all the properties of the drug, some of which were destroyed by the act of boiling. Mr. Battley had promised to state to the Society the exact manner in which he proceeded in the preparation of the infusion.

New Principles in Opium.

Mr. Foote then read a translation of a paper by M. Pellitier, on the analysis of opium, in which it was stated that after the performance of a number of experiments, that gentleman had succeeded in detecting two new principles in opium, *narcine* and *paramorphia*, the first of which seemed to possess on trial, no active properties; the second in a very few moments, in a minute dose, produced a violent tetanus. In the course of the paper it was stated that by analysis of the opium procured from poppies grown in France, and that obtained from the East, that the first contained more morphia than the last; and that no narcotine could be detected in it. It was also stated that the English opium possessed less morphia than that imported from the East.

Dr. Morris considered M. Pellitier was in error, when he stated that the opium of France contained no narcotine; that obtained from poppies grown in England, unquestionably did so; and he thought it would be very singular, if in a climate and soil so similar as France is to England, that there should be such a difference in their products.

Dr. Sigmond considered the reason why such different results in the analyzation of opium had been arrived at by different chemists, arise from the difficulty of procuring two specimens coming from the same place, at all alike. Exposure to the sun, the collection of the poppy juice at different seasons, and other circumstances, might account in some measure for these discrepancies; it was evident that some of the principles of opium were destroyed by its being kept long packed up in boxes. He was inclined to think that the experiments of M. Pellitier were anything but conclusive; the new principles he had supposed to be present, might have been the educts of complicated experiments. At all events, such statements were to be received with great caution.

Conine.

A specimen of *conine*, the active principle of the conium maculatum, prepared by Giga, was exhibited to the Society. It is a purely transparent liquid. Dr. Morris had detected, by accidentally holding the hermetically sealed phial which held it, a minute or two in the hand, that the warmth thus applied, had the effect of coagulating the fluid, and that if a heat of about 120 deg. was employed, the liquid separated into a transparent, thin, and an oily fluid.

FREE HOSPITAL, GREVILLE-STREET.

To the Editor of the London Medical and Surgical Journal.

Sir—Since I last wrote to you, I should think the governors of the Free Hospital must have felt that their unwise and unjust proceeding towards Mr. Tweedie has met with its reward. How many governors have resigned since that time? How have they carried on proceedings in their *amicable* meetings at the board? An answer to these questions might be rather amusing to those who place any belief in their high-sounding protests, and their erroneous statements. Shall they try to carry things with a high hand because they know they have done wrong, and are ashamed to retract, as many are—ashamed of acknowledging their faults! I am sorry that the objects for which the charity was established, should be frustrated by designing men—that an institution capable of doing so much good should be made the theatre of party politics—personal quarrel—and blackguard exhibitions such as that which took place on the dismissal of Mr. Tweedie.

I have been anxiously looking in the other Journals for some support to Mr. Tweedie and the cause of the profession; hitherto I have been disappointed—yours is the only one which has been bold enough to be independent.

Yours obediently,

A late Governor of the Free Hospital.

THE NEW METROPOLITAN UNIVERSITY.

To the Editor of the London Medical and Surgical Journal.

Sir—The Hahnemanic doctrine of "similia similibus curentur" seems to be that on which the founders of the new university wish to act. They talk glibly of monopoly, execrate it, condemn it, and now threaten to overthrow it. How? Why, by raising another monopoly; for if the new university, in its laws, shall make an exception to any school, or schools, in which knowledge can be obtained, then we say that such a fact will be a monopoly—a monopoly of the grossest description.

Let us inquire, Sir, on what grounds these exceptions are founded. Are they upon the greater degree of talent of the profession at

the two colleges in London? We should not wish to enter into any sort of comparison; but surely no one will be so bold as to say that there is not as much talent and industry in our *private* schools as in our public ones. Then, Sir, this cannot be the reason; or if it is, it is a most unworthy and unjust one. It cannot be, Sir, that the pupils of these public establishments have distinguished themselves more than those of other schools. Certainly not. Let the annals of medicine decide it; let the register of the Hall and College bear witness against them. Let the books of the *private* teachers prove the number of pupils that have entered to their schools, who had been previously studying at the public establishments, rejected in their examination at the boards of the Hall and College, but who after a short time spent in the private establishment, have passed the ordeal with honour! Sir, the government of this country should either reform effectually or not at all. The doctrine of "similia similibus curentur" is not more dangerous in the medical than the political world. It is at the best but an experiment, and the chances are ninety-nine in a hundred against its success: that is, its success in acting as a check to the great monopolies of Oxford and Cambridge. I have thought sometimes, Sir, that interest might have had a great deal of influence in the formation of the charter of this long-talked-of, long-expected university. Who are the patrons of the London University? Who are the shareholders in that institution?

An answer to this question might probably throw some little light on the causes of the exclusive principle. With regard to joining King's College in the monopoly, that may be easily accounted for; it will serve to throw an air of justice (!) over a matter sufficiently disgusting, without such a specimen of chicanery.

Trusting you will favour me with a corner for these remarks, though they may be in some respects opposed to your own, I beg to subscribe myself,

Your obedient servant,

AN OLD SUBSCRIBER.

March 20, 1836.

FRIENDS OF THE PROFESSION.

To the Editor of the London Medical and Surgical Journal.

SIR—It is rather curious to notice the various ways in which the so-called friends of the profession show their kindness to it. For instance, on a late occasion when a petition for remunerating medical men for their attendance at Coroners' Inquests was drawn up and extensive publicity given to that fact, for the purpose of getting names attached to it, how did he of the Gazette show his friendship in this case—why, by trying to throw a slur on the originator of that petition—a gentleman who had been indefatigable in his efforts to obtain a necessary and just grant to his professional brethren. The Editor of the Green Lizard, as you properly style the work he conducts, calls such conduct befriending the profession—like the Irishman at Donnybrook fair—"he meets with his friend and for love knocks him down." On other occasions, this friend to the profession makes his private piques, or his political animosities carry him into other tests of his friendship, quite as satisfactory. What can be said to a man who, under the cloak of friendship, stabs to the very heart those who were weak enough for a moment to confide in him? Well may we echo in the present instance, the celebrated expression—"God protect us from our friends."

OBSERVER.

Hospital Reports.

NORTH LONDON HOSPITAL.

Attempted Poisoning by Laudanum.

ELIZABETH NEWMAN, aged 37, was admitted March 20th, under the care of Dr. Elliotson. She has been an attendant in a lodging house, but formerly in better circumstances, and has been much distressed in mind. Yesterday, about three o'clock, she took a considerable quantity of laudanum, perhaps two teaspoonsful, thinking to frighten her daughters, who had behaved unkindly to her, but not with the intention of destroying herself. She soon began to feel the stupifying effects of the opium, and mentioned what she had done. Medical men were sent for, who administered emetics which succeeded in causing vomiting. Between four and five P.M. she was brought to the hospital in a state of insensibility. The stomach pump was applied, and sulphate of zinc exhibited as an emetic. What came away was perfectly clear, and had no smell of opium. The person who brought her said (which was a mistake), that she had taken an ounce and a half of laudanum, and that vomiting had not been effected, which induced Mr. Taylor to apply the stomach pump, &c. The stupor soon passed off, she passed a restless night. This morning she appears to be suffering from the sulphate of zinc, complaining of heat in the throat and gullet, difficulty of swallowing, slight tenderness of the larynx and trachea and epigastrium; tongue white. She is a little incoherent; pupils natural, and obedient to the light; pulse irregular; tingling of the skin. She says she is subject to fits of violent passion, and hysteria. 22nd. Low diet. An ounce of castor oil. Left the hospital on the 23rd, better.

THE

London Medical and Surgical Journal.

No. 11. SATURDAY, APRIL 9. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,
BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE IV.

Secretion—Excretion—Absorption—Assimilation.

By one medical author it has been said, that "were a definition of life required, it might be established on that capacity by which the animal preserves its proper heat under the various degrees of temperature in which it lives." In my mind, however, the definition would be made more correct and comprehensive by including a statement of that constant change which every form of living existence necessarily undergoes in the constituent imgredients of its material construction, "By mutation," it may be said physiologically as well as poetically, "all that is, exists," at least all that lives, is thus dependent upon change. And this, there-is life's great characteristic. Unorganized matter continues to preserve its form and essence without receiving any thing from what is about and around it; and without necessarily undergoing any change; and when change *is* wrought in it, by chemical agency, it then becomes something actually different; but organized bodies are constantly and necessarily receiving supply from without, are as constantly converting this supply into a portion of their own essence—are, in a word, incessantly throwing out and taking in; and yet, through all these chances and changes, they preserve their complete uniformity and absolute integrity. This unceasing throwing out and taking in, is effected by a particular order of vessels, the structure and economy of which we are now briefly tc describe.

In speaking of the manner in which the minute ramifications of arteries lose themselves in different parts and organs, I announced to you that some seem to open upon surfaces by tubes which are merely continuations of the blood-vessel, but which in these parts and in this minutiæ of being, appear to perform a sort of glandular or secretory office. We know, for example, that porous exudations transpire, as the French call it, on the outer surface of the body; now, this transpiration or perspiration is a different fluid from the blood in its chemical qualities and outward appearance, and essential condition; and yet, such is the smallness and apparent simplicity of these vessels, that, as I have above intimated, the physiologist has not hitherto been able to say where the artery ends and the secretory vessel begins. Other organs of secretion are more complicated, and therefore more easy, in one sense, of explication; but even these the terminating arteries, and, if I may so say, manufacturing tubes and convolutions are so intertwined with, and lost in, one another, that an equal mystery hangs over the actually glandular, as does over the tubular separation just adverted to. But it is from my purpose to go deeply into this subject; and my plan, beside, is to premise an anatomical description of the various parts that are to be the subsequent topics of consideration as affections of parts; and I now proceed to delineate the structure and habits of vessels, which, like the blood-vessels, are to be found everywhere, and which are as necessary to vital existence, as are the blood-vessels themselves*.

* In reference to vitality, as a principle, I think the doctrine now coming to obtain is much more philosophical than that of considering life abstractedly. Life, it has been justly remarked, is, in one sense, nothing; it is the result of excitation on a certain construction of materials. Take away from a man all the supporters or exciters of life—deprive him of air and aliment—and what will become of this boasted "vivifying principle," this "life in the blood," and other expressions quite destitute of real meaning. Let us always be particularly cautious against mixing physiological truths with moral and ethical science.

These vessels are named lymphatics, which lymphatics are subdivided into lymphatics properly so called, and lacteals. Lacteals are thus denominated from their office of transmitting and operating upon the chyle, so that it shall become blood when received into the blood-vessels; while the lymphatics have been regarded as the organs which supply the lymphatic or watery portions of the vital fluid. This theory, however, has recently been somewhat qualified, as will appear in what is to follow.

Corresponding with the terminations of the secretory tubes just alluded to, the open mouths of the lymphatic absorbents are everywhere present, or rather their presence is inferred, while the mouths of the lacteals originate from the villi or internal coats of the intestines, especially of those intestines or that portion of the intestinal canal afterwards to be pointed out as anatomically named the small intestines; the termination of these vessels is manifestly into the thoracic duct, which properly commences about the first vertebra of the loins, and mounting upwards, terminates between the left jugular and subclavian veins, or more properly speaking, pours its contents into the latter.

The structure, both of the lymphatics and lacteals, is so pellucid that when they are injected, in the dead body, with quicksilver, the metal seems as if it were lying in so many lines without any covering or containing vessels. Notwithstanding their transparency the absorbents are, however, much stronger than either arteries or veins. Their inner coat is doubled into an astonishing number of valves, these being in some parts to the number of four or five pairs in every inch of canal; these valves are for the purpose of preventing retrograde action or flow; but in one instance at least lymphatics have been found after death without valves. The bodies which are called lymphatic glands are peculiar to the order of vessels now under notice. On the particular structure of these glands physiologists have been at variance, some assuming the interposition of cells, others imagining that they are merely compounded of a cluster of their own vessels. Against this last supposition it is to be stated that the *vasa inferentia*, or those that enter the gland, are more in number than the *vasa efferentia*, so that there would seem to be some sort of organization by which these vessels are expended, as it were, in the glandular substance. It is necessary for the young practitioner to be careful in distinguishing these, the lymphatic glands, from those which have a duct or outlet. In the neck, for instance, where they are numerous, the disorders which attack them, and the maladies that are peculiar to the salivary glands, afterwards to be described as pouring out saliva, must be carefully distinguished both in pathology and practice. These glands, we all know, lie thick in some parts, as in the groin, the ham, the axilla, and, as just remarked, the neck, and, as we shall very shortly remark, are incident both to common and peculiar or specific disorder.

What is the nature of their action? In other words, how are fluids received into and propelled along their tubes? We must at least presume that they originate by open mouths, so as to take up the deposited matter they are destined to receive; and certainly here, at any rate, it cannot be supposed that the received matter is propelled by any *vis-a-tergo* power; or, by the very furthest stretch of supposition, we cannot allow this propulsion to explain the whole of their recipiency and transit. Capillary action will not serve as an explanation either; for this would only permit the transit to a certain extent; moreover—and this is the most wonderful circumstance connected with their functions—the vessels in question are gifted with a certain faculty of selection; that is, they choose some substances, and refuse others.

It must indeed be admitted, that absorption and lymphatic action differs from any other action with which we are acquainted; and, in one point of view, this action must ever remain ultimate, as it is called; I mean, that were we to ascertain, in the course of investigation, still more precise and satisfactory knowledge of their law and structure than is at present in our possession, we must still remain ignorant of the *quo modo* by which such structure is connected with such display of power. Muscularity and capillary agency do, however, assist, in a subordinate and modified manner, in effecting absorption, as, indeed, it has already been intimated when we were considering the circulation more especially and abstractedly; I say, that the function now under remark is not only allied to, but actually connected with, the circulation of the blood, and this, I think, to a greater extent than those are disposed to recognise who apply hydraulic principles to vital movements of fluids.

That the agency of lymphatics is partly muscular is ascertained both by their structure and by the mode in which their contents are transmitted; but this muscularity is unquestionably modified by other laws than that of mere contractile power. The glands which I have described as belonging to them, seem to give an additional force to their functions in a way not very clearly

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Poor indeed must be the doctrine of man's responsibility to his Maker, if it be afraid of being overturned, or *in any possible way interfered with* by researches into the laws of nature. "The man within the breast" is as different from the man of the physiologist as is the secretion of a tube from the stings of conscience.

made out. It is indeed probable that all matter to be formed into aliment must be operated on in some especial manner by these glands; and certain it is, that where they are diseased, weakness and irregularities of growth are conspicuous.

It is not, as I have already remarked, all matter that will be taken up by the lymphatics. One condition of bodies seems necessary to imbibition, namely, fluidity. I recollect, almost at the commencement of my medical studies, being struck with a pleasing illustration of this necessity mentioned by Sir Astley Cooper in his lectures. Mr. Cline, while performing the operation for cataract, met with an accident, which was that of the instrument's point breaking off and lodging in the transparent cornea of the eye, in which situation it was obliged to be left. When the eye was examined the day after the operation, a rust appeared on the surface of this extraneous body, which rust was complete on the second day, and, in the course of a few days more, it was entirely dissolved, and gave a brown tinge to the whole aqueous humour, until the absorption of the whole was completed, when the humour resumed its common appearance—illustrating not only the fact, to prove which I have given the narrative, but further proving the constant, the incessant mutation of the particles of the body which causes that, every successive hour of our lives, we are in fact different existences from what we had been the preceding hour.

Thus, as the circulation of the blood, and exhalation from the lymphatic terminations of arteries, are processes incessantly going on, so absorption is equally constant and unremitting. "Dr. Musgrave injected twenty-four ounces of water into the thorax of a dog, and in five days the whole was taken up by the absorbents; for the breathing, which by the water had been much interrupted, became as free, after the lapse of the above mentioned time, as before the water was introduced into the chest." So in dropsy, as will be afterwards shown, give a grain of elaterium, and you will excite the emunctories to discharge, and the absorbents to take up in such sort that breathing, which before the administration of the drug had well nigh been oppressed to suffocation, shall be rendered so free and facile, that the patient for a time will think of nothing but going on his way rejoicing that such power had been given to man and to medicine as to snatch him seemingly from the jaws of death, and extricate him from a watery grave.

Dr. Hunter again relates, more in detail, the following experiment made upon a living dog, for the purpose of proving the extensive power of lymphatic imbibition. An opening was made into the cavity of the animal's belly, and three quarts of warm water were injected and secured. In about six hours after, he was examined, and *not above four ounces of the water were remaining.*

But to multiply relations of this kind were superfluous; one or two are as good as a thousand, and I proceed to say, that during the suspension of some of the functions of the animal system, the absorbing, like the circulating process, of which, indeed, it is a part, is going on. Thus, when we are asleep, the absorbents are up and in exercise. Witness the thickened mucous secretions when we awake in the morning, the absorbents having taken up during our sleeping hours the more fluid portions of the deposit.

An important question in its medicinal or therapeutic bearings remains to be touched upon, viz. whether, by the surface of the body, any matter can be received from without, the scarf or external skin remaining entire.

Now it is well known, that by bathing the body in water, thirst will be alleviated, at least occasionally, which the practice of sailors proves, who when the supply of fresh water fails them, either plunge into the sea, or, what they find more efficacious, take off their shirts, and, dipping them into the water, put them on wet, and thereby quench their thirsty feelings. But, say the physiologists, who are more partial to the impermeability of the skin, the effect here is referrible to sensation, and the thirst is moderated or extinguished by the sympathetic feelings that are induced.

It is, however, urged on the other side, that the actual weight of the body may be augmented without any aliment being taken into the stomach, and therefore, it is inferred, that some matter must have been imbibed from without, to account for this increase of weight, as in the much talked of experiment of the late Dr. Watson, who gave a Newmarket jockey, previously to a race, a glass of wine, which weighed but little more than an ounce; and upon this jockey being weighed immediately after the race, he was found to have increased thirty ounces, although he had taken nothing but the one ounce of wine, and notwithstanding the loss he must have sustained by perspiration.

The objectors to the hypothesis of skin absorption reply to this account, that the matter by which the additional weight was imparted, might have been received through the lungs, and that no decisive results can be ascertained respecting the particular in dispute, without instituting processes that shall take the pulmonary exhalation and absorption into account. Accordingly, various experiments have been made with this exception in view; but, from the difficulty and complication of the processes, and, probably, from the varied powers of perception in different individuals who conduct them, inferences have much varied. It seems, how-

ever, most probable that the skin does possess the faculty of imbibing circumambient fluids, of receiving some, and rejecting others. Whether actual nutrition, or positive aliment, be taken in by the skin or lungs, would seem still more problematical. We are told by historians that Cleopatra travelled with vast numbers of she asses, and that she daily bathed in their milk; but how far this fluid gave nutriment to the frame, as well as sleekness to the skin, it may not be easy to determine.

When poisons, such as the venereal, and their antidotes, as mercury, are received into the system by the surface, some abrasion is implied; and even the fact of mercurial ointment being taken in by outward friction would not seem altogether counter to the assumption—inasmuch as friction which shall not proceed to the extent of breaking the cuticle may so far alter its natural arrangement as to take it off as it were from the dermoid mouths of the imbibing pores.

The determination of this question has a practical bearing as well as a physiological interest; and for myself, I am disposed to think, that we might oftener supersede the stomach than we do in our remedial institutes. I am in the custom of applying castor oil to the abdomen when costiveness is urgent, and the irritability of the first passages considerable. Sometimes I have gained derision for my proposal; but I feel satisfied that even the specific or cathartic effects of this medicine are often insured by the mode of administration now adverted to. Croton oil, almost all allow, may be brought to act in this way.

The uses of the absorbents, generally, besides being the agents of alimentary supply, are those of rendering the various secretions of the body fit for their respective purposes; for instance, the bile when first formed by the liver, is without those stimulant properties which it receives in consequence of its more watery parts having been taken up by the lymphatics of the liver; and I shall afterwards have occasion to show that one of the principal features in some of the most important diseases is formed from the want of due action in the absorbents of the organ or part affected.

Now, the simultaneous action and harmonious combination between the processes of exhalation or secretion and absorption, constitutes one of the most astonishing phenomena in the whole of our wonderful constitution and economy—the colourless terminations of arteries depositing the materials by which organization is constituted, and parts evolved, while the absorbents take up the superfluous quantity of this perpetual effusion. To this principle, indeed, I have previously alluded; but, in order to gain correct notions of the nature of those maladies which occur in consequence of defective or erroneous absorption, it must be particularly observed that the capillary extremities of arteries deposit essentially different matters according to the localities of their termination; thus, for example, where bony substance is required, a fluid containing the earth of bone is deposited, and the lymphatics of the bone have to separate the mere lymph from this osseous material. The evolution of soft parts, on the other hand, is effected by the effusion of a something, which properly treated by the absorbents, is formed into vessel, and concreted into fibre. Again, in the different periods of life, and under various circumstances, regular or adventitious, the nature and quality of the discharge from the exhalent arteries, and consequent reception by the absorbents, undergo very material change, the balance of power between the one and the other system being differently regulated in the several stages of evolution, perfection, and decline. Thus, in early infancy, when the parts that are afterwards complete bone are now principally composed of the secreted something called cartilage, the earth of bone—which is mainly formed of phosphate of lime—is deposited in greater abundance until the process of ossification be complete; and, then, this ossific deposition becomes less in quantity; or, if the deposit be the same, the reabsorption becomes more proportionate to the quantity thrown out.

But, it is not only in material, but also in disordered condition, that the power of absorption is manifested in a remarkable manner. I shall shortly state that I cannot conceive of inflammation, even in its most simple form, being resolved without some of the effused matter being taken up by the absorbents; but in more complicated cases of morbid being, this, the absorbent faculty, is exerted in a still more decided and astonishing manner; as when extravasated fluids, after having been thrown out into cavities, and occasioned dropsical affections, are taken up again into the circulation, and discharged by the several emunctories.

By this principle of absorption, too, are those parts removed which, in advanced life, cease to be necessary, such as the breasts of women, when the time of child-bearing is over; and, indeed, as I have before intimated, deposition and absorption are processes momentarily going on; and which can only cease with the cessation of life.

I have, hitherto, gentlemen, it will be seen, spoken of the lymphatic system only as the absorbent system; and this has been the doctrine taught by our own countrymen for many past years. Recently, however, physiologists have considered the subject of imbibition in rather a different manner; and we are indebted greatly to the French, German, and American physiolo-

gists for instituting series of long and laborious experiments in order to prove that the blood receives supplies in a different way from that of the lymphatic channels.

The doctrine which these experiments have aimed to establish is rather, however, a revival than a novelty. Dr. Darwin had long before them expressed himself in the following terms: "As the imbibing mouths of the absorbents, already described, open on the surface, and into the large cavities of the body, *so there is another system of absorbing vessels*, which are not commonly esteemed such: I mean the veins which take up the blood from the various glands and capillaries, after their propelled fluids or secretions have been separated from it."

You will remember, gentlemen, when I was alluding to the circulating powers, I mentioned that it is not conceivable to suppose venous origin without some imbibing or absorbing process; and in harmony with this suggestion Darwin continues to say, "The veins resemble the other absorbent vessels, as the propulsion of their contents is carried on in the same manner—they alike absorb their *appropriate fluid*, and have valves to prevent regurgitation. This appears, first, because there is no pulsation in the very beginning of veins, which must happen if the blood was carried into them by the action of the arteries. Secondly, the venous absorption from the penis, and from the placenta, is still more similar to lymphatic absorption, as the blood is here poured into cells where all arterial impulse must cease."

We may go, indeed, so far back as Hippocrates for an expression of an imbibing power in the body generally, and Galen expresses himself to the following effect:—"There are veins placed on the skin throwing out redundant matter, and taking in something from without." But previous to the circulation being known, all reasonings on the absorbent functions were vague; and it must be admitted that there is some novelty in the suggestions of Magendie and others, in respect of the admission of matters through the coats of the vessels themselves. I must refer you to the courses on physiology, more particularly and abstractedly such, for a detail of the several experiments from which our very ingenious contemporaries have deduced their inferences; suffice it to say, that the doctrine of lymphatic absorption, exclusively as taught till very recently, in the British schools especially, is attended with quite as many difficulties as the assumption of an imbibing power in the open mouths, and a sort of percolating admissibility in the coats of veins.

But when the physiologists of the new school say that the lymphatics have no imbibing power, but are merely the channels through which lymph is returned into the heart, they seem forgetful of the manner—the extraordinarily rapid manner in which we are often able to trace the course of absorbed poison through the lymphatics into the lymphatic glands; they overlook, moreover, the manner in which mercury introduced into the vessels leading to these glands, applies itself in their excitation.

The suggestion of Alard seems nearest to the truth, in reference to those organs, the lymphatics and the blood-vessels, connected with absorbing processes. He supposes that while there are subordinate sets of terminating capillaries, each adapted to its respective function, so there are similar sets of returning vessels, connected with the venous system, some terminating in the sides of the adjacent veins, others uniting and forming independent trunks or absorbents.

In whatever way the anatomy of the absorbing agents be determined, it is sufficiently evident that the function of absorption is distinct enough to be considered separately from the general circulation or motion of the blood merely—and I have called your attention to its peculiarities on the principles already referred to. I am afterwards to speak more at large on the disordered habits of the securing and absorbing faculty; but I shall here just mention an important fact which came out, especially from the laboured and well conducted experiments of Magendie—it is this—that a fulness of the vascular system interferes with the facility of the absorbing process—that blood-letting gives efficacy to the agents that excite the imbibing faculty, and that when we use our lancets—and, in spite of the homœopathists, I should aver it is occasionally necessary to do—the main good procured is not seldom attributable to the principle now referred to. I shall, of course, have other opportunities of exemplifying this datum; but I feel anxious, as I go along, to make practical remarks in immediate connection with the anatomy and physiology of parts, and I am disposed to think that neither theoretically nor practically is this intermediate manner, as it were, of promoting absorption duly recognised.

In regard to the lacteals, all agree that these vessels are the media of conveying into the blood the matter which it loses in the course of circulation—that, in other words, the lacteals absorb food, which is first converted into chyme, then into chyle, in a way hereafter to be traced; which chyle is poured into the thoracic duct, whence it is received into the blood-vessels. As chyle, indeed, it seems to want very little besides the colouring principle to be blood. "In about two minutes," says Mr. Brande, "after the chyle has been received from the duct it assumes the appearance of a stiff jelly, which in the course of twenty-four hours gradually separates into two parts, producing a firm and contracted

coagulum, surrounded by a transparent colourless fluid. These spontaneous changes are very similar to the coagulation of the blood, and its subsequent separation into serum and crassamentum—they are also retarded and accelerated by the same means."

The fluid contained in the thoracic duct of animals that have been kept for four-and-twenty hours without food, is perfectly transparent and colourless, and seems to differ in no respect from that which is contained in the lymphatic vessels. It has the following properties: it is miscible in every proportion with water; it produces no change in vegetable colours; it is neither coagulable by heat, nor acids, nor alcohol.

When on the subject of disorders connected with the digestive and assimilating processes, I shall slightly recur to these different conditions of the chyle, according to the nature and quantity of the ingesta.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE X.

Osteology of the Pelvis—Deformities—Difference of the Pelvis relative to Age, Sex, and Species—Causes of Vices of Conformation—Modes of detecting Deformities—Pelvimeters—Enumeration of Deformities and their Morbid Effects—Practical Inferences.

It is to be remembered that the axis of the human body is perpendicular, and falls on the symphyses of the pelvis, while that of the brim of the pelvis is represented by a line passed through the umbilicus, and continued to the apex of the sacrum, or sacro-coccygeal joint, or apex of the coccyx according to some obstetricians. It would be an error to assert that the axis of the brim of the pelvis is a right line passing through the centre of that aperture, as the brim and outlet look towards the anterior surface of the body.

It is therefore manifest that the axis of the brim, cavity, and outlet of the pelvis form a curved line, as represented in pl. 1 and 2. The practical inferences from these facts are, that a body passing into the brim of the pelvis, must advance *downwards* and *backwards*; when in the cavity, *downwards* and *forwards*; and when in the outlet, *forwards* and *upwards*. The scientific practical obstetrician makes traction in these respective directions according as the fœtal head is in the brim, cavity, or outlet of the pelvis; while the ignorant operator endeavours, unsuccessfully and dangerously, to extract the head, feet, or body of the infant, no matter how situated in relation to the pelvis, by drawing them *downwards* and *forwards*. He can never succeed in effecting delivery in these directions; he contuses the organs in the pelvis, generally destroys the infant, and frequently the mother.

I shall now give ocular proof, by demonstration on the obstetric machine and pelvis.

The posterior part of the pelvis supports the weight of the body, while the anterior is an arch or buttress. The weight of the body, and superior extremities, is transmitted by the spinal column to the sacrum, then along the iliac bones, and finally to the pubis, all which parts press with more or less force on each other. One of these arches receives the weight of the body; the other transmits it to the inferior extremities by the acetabula or

cotyloid cavities. (Denman, Desormeau, Velpeau, &c.) The practical inference from this physiology is important, that separation of the saero-iliac, or pubic joints, must impede loeomotion and prevent the ereet posture; but of this hereafter.

Of the Difference of the Pelvis relative to Ages, Sexes, and Species.—At birth, the pelvis is very straight and elongated, and its crest is rough, and the ilium is almost vertieal; the cavity of the pelvis is conoid, and not exeavated. The lateral diameter is shorter than the saero-pubie. The pelvic bones are not perfeetly ossified, but covered with cartilages, to allow of reduction of this cavity by pressure during delivery, when the infant descends by the feet or breech. It becomes more and more ossified during childhood, and is completely ossified about the fifteenth or twentieth year.

Osteology of the Pelvis.—In the male, the pelvis preserves its infantile properties; it is deeper than in woman; its short or saero-pubie diameter is not more than three inches, and the transverse or bis-iliae measures four and a half; and the bis-ischiatic three and a half. The arch of the pubis is short and triangular, not expanded as in the female. The sacrum is less hollow, the bones are thieker and stronger in general, and more solid.

It would be physieally impossible for an infant of full growth to pass through the male pelvis; and hence the absurdity of the old fictions that hermaphrodites were fathers and mothers on different oecasions. There never was a perfect human hermaphrodite; and the reputed instanees mentioned in the dark ages, and republished in treatises on Medieal Jurisprudence, are wholly unworthy of eredence.

The pelvis of *the female* is broader at the hips, as well as in every other part; and here nature seems to have sacrificed the facilities of motion to the advantages of pregnancy and parturition. The articulations of the female are not anchylosed; while they are firmly ossified in the male.

The pelves of the lower classes of animals differ materially from those of the human species, and these are so eonstructed that brutes require no aid, and suffer little pain in bringing forth their young. In these animals there is but one axis in the pelvis, the sacrum is almost parallel with the spine, the straits are only slightly inclined, the parietes are of equal depth and of the same length; the ossa innominata are so straight and elongated that thcre are no iliac fossæ; and henee expulsion of their young is not exposed to the same diffieulties as in the human species. We find a vast variety in the pelvie strueture of animals, which, as we gradually ascend the zoological scale, beeomes insensibly more perfeet. Thus the pelves of the monkey and ourang outang have a strong resemblance to that of the human species; and we can trace the shades between these and the Boschiemans, who are the conneeting link between monkeys and man, the Ethiopians, Negroes, Malays, Japannese, and Caucassians, the last of whom are most different from the other mamiferæ; and thus, we perceive, that parturition is more painful as the species is more perfect, and *vice versâ:* a most admirable and singular provision of nature, that the dangers are increased, and most aceumulated, aeeording to the perfection and degree of intelligence of the animal. In the kangaroo and other species of marsupiæ, the pubis is loose; while the pelvis is so narrow in the mole as to be separated during parturition. In the cetaeeæ there is seareely a vestage of it; and in birds, reptiles, and fishes which lay eggs, we observe it gradually deeomposed, and finally to disappear. (Wrolick's Essay on the Diversity of Pelves, Fev. Bull. de Scienees Med. 1827. Velpeau. 1835.)

Of the Deformities of the Pelvis.—The pelvis may be deformed in its rim cavity, and outlet, and offer serious impediments to the passage of the

infant, or render delivery dangerous, difficult, or impossible. On the contrary, it may be too capacious, or possess excess of amplitude, thereby affording too ready a passage to the fœtus. In the latter case, delivery will suddenly take place, often unexpectedly, and in extraordinary situations, as in the highway, in a stage-coach, in the water-closet, night-chair, or in the sitting-room, before the woman can retire to her apartment. The various obstetric works afford ample evidence of this fact, and it is even occasionally attested by the public journals.

When the pelvis is unusually capacious, it causes a great number of inconveniences besides those already noticed. In such cases, the uterus during gestation is not properly supported, may be retroverted, or antiverted, or may not rest on the iliac fossæ, and be prolapsed or even protruded beyond the genital aperture.

A large pelvis not only favours the descent and displacement of the womb, but also the rapid termination of parturition, and is consequently predisposed to all the accidents subsequent to sudden delivery, as hæmorrhage, syncope, renversement or "turning inside out" of the uterus, of which Levret observed many examples*. These accidents have been exaggerated, according to Mad. Lachapelle, M. Velpeau, and others, who state that the sudden expulsion of the infant, and of the placenta, and the rupture of the navel cord, very rarely occur in such cases.

Causes of the Deformities of the Pelvis.—Observation abundantly proves, that with many women the pelvis retains the form which characterized it during infancy and puberty, and which nearly approaches to that of the male. In fine, every part of the true and false pelvis may be deformed, and diminished in capacity. In some cases the ossa innominata nearly approximate; in other cases, the pubis approaches within half an inch of the sacrum. (Weideman, Boivin, Jeuffrion, Maygrier, C. Bell, Nægele, Velpeau, Barlow, &c.)

The inferior strait may be so considerably diminished, that the coccyx will rest upon the pubis, and the ischia approximate towards each other very closely; and there may be every degree of deformity between these extremes. Exostosis may form upon any of the bones of the pelvis, and an immense variety of tumours may be developed in the vagina and internal or external genitals, which will impede parturition. The method of detecting deformities, will be described after allusion to their causes.

Of the causes of Vicious Conformation of the Pelvis.—To appreciate the causes of the malformation of the pelvis, we should examine them in infancy, at puberty, and at the adult age. During the first seven years, rickets will in general afford the explanation. When we admit that the softness of the bones prevails throughout the body in rachitis, it is clear that if the infant is placed too soon or too much upon its legs, the base of the sacrum must approach towards the pubis, and the acetabula must be directed towards the promontory of the sacrum; the morbid effect of which will be that the sacro-pubic and oblique diameters will be thus diminished. When the infant leans too much upon one extremity, which is sometimes the case, the oblique diameter of one side will be contracted; when it is allowed to sit too much, at a tender age, the concavity of the sacrum becomes deeper, and the antero-posterior diameters of the superior and inferior straits are diminished; and if it is placed continually on the back, the concavity of the sacrum disappears, so that the sacro-vertebral junction and the coccy-pubic diameter lose their ordinary dimensions, and the transverse

* Art des Accouch.

diameter will also be affected. It is to be recollected how imperfectly the bones are ossified in cases of rickets, and therefore how much they must be influenced by the action of the many powerful muscles attached to the pelvis, especially of those connected with the coxo-femoral articulation.

The deformities of the pelvis are caused by partial or general malacosteon, or mollities ossium, or osteomalaxie, the irregular action of muscles, and the bad position of attitude. Women who labour under such diseases, have generally the head and pelvis thrown backwards, and they never can become mothers without the risk of great danger. I need scarcely observe, that in cases of amputation at the upper third of the femur, or the hip joint, deformity of the opposite side of the pelvis will occur, because the whole weight of the body will be principally placed upon the sound extremity. Fractures, when irregularly ossified, luxations, caries, and syphilis, often give rise to serious obstacles to delivery. In conclusion, I may observe, that rachitis is the cause of pelvic deformity in young infants; and after the age of puberty, the chief cause is osteomalaxie affecting the vertebral column, producing spinal curvatures, which cannot exist to any great extent without affecting the pelvis very considerably. This fact is attested by the various writers on spinal curvatures.

In France, and other countries, it is usual to ascertain the extent of pelvic deformity by instruments called pelvimeters; but as such are never employed in this country, a slight allusion to them will be sufficient. The fact is, deformity can be ascertained much more correctly with the finger than any pelvimeter.

As a general rule, those women affected with great pelvic deformity ought to avoid becoming mothers. The dimensions of the pelvis can be readily ascertained on the bones of the skeleton, but with difficulty on the living subject. Instruments called pelvimeters have been invented to facilitate the acquirement of the desired information. The pelvimeter of Coutouley is a kind of compass, one extremity of which is placed on the pubis, and the other on the sacrum; and the distance between them is measured with rule. This contrivance cannot be depended upon, because there may be exostoses and great deformity in the cavity of the pelvis, which cannot be detected by it. To remedy its defects, M. Baudelocque proposed an improvement, which he called a *callipers*. This resembles a shoemaker's measure, or rule, one extremity of which was to be introduced into the vagina, and be placed against the promontory of the sacrum; while the other was applied on the symphysis pubis, externally, so that the space between the two points of contact was considered the extent of the sacro-pubic, antero-posterior, or short diameter of the brim of the pelvis. Such contrivances are never employed by British obstetricians, who prefer the application of one or two fingers, by which they acquire much more correct information. When the fingers are passed into the vagina, in most cases, they may be readily carried to the promontory of the sacrum, and round the cavity of the pelvis, so that the length of the antero-posterior, oblique, and coccy-pubic diameters may be ascertained. We can also discover by this exploration, the existence of any contraction or deformity of the pelvic bones, or of the many soft tumours which diminish the normal capacity of the pelvis.

M. Velpeau prefers this method of mensuration or pelvimetry, and is no advocate for the use of the various ingenious but inaccurate contrivances of his countrymen. He holds that the compass of Baudelocque, and the *cephanometer* of Stein, are the most useful pelvimeters. He also informs us, that the use of the *mecometer* of Chaussier is confined to the Maternity in Paris, and that the *intro-pelvimeter* of Mad. Boivin does not differ very much from the instrument of Coutouley. There is one great objection to all

these instruments, which is this, that it must be admitted that the quantity of fat, of the size of the lumbar and gluteal muscles, and the thickness of the pelvic bones, must render the mensuration by pelvimeters very uncertain, and rarely, on many occasions, if ever, to be depended on.

A tolerably accurate idea may be formed of the dimensions of the pelvis, by examining the bones externally, with the hand, and even over the inner garment. Such an exploration will be required when we are consulted by anxious mothers, as to the safety or prudence of allowing their daughters to enter into conjugal engagements. I need scarcely observe that such examinations ought always to be made with the greatest modesty and circumspection. It is not necessary that the woman should lie in bed, or her dress removed, though it ought to be loosened, and she should sit or lie on a sofa.

If she is well formed, the hips broad, and wider than the base of the thorax, the great trochanters widely apart, the sacrum not too flat or convex, the symphysis of the pubis not too depressed or salliant, she possesses natural conformation. By placing the fingers on the symphysis pubis, and barely within the external labia, and carrying them along the arch and descending branches of the pubis, we can easily ascertain whether the arch is contracted or forms a sufficiently large circle; and also if the ischia are sufficiently distant from each other. It is also well to recollect, that the width between the hip bones is double that of the superior aperture of the pelvis.

But when the hips are unequal, one being higher than the other, and the external iliac fossæ depressed, there is some degree of diminution of the bis-iliac diameter. The approximation of the ischia, the convexity of the sacrum, and the inclination of the coccyx forwards are easily recognized. It is often essential to the happiness of families to arrive at correct conclusions on the preceding subject. Consultations on this question are not of frequent occurrence; but every medical practitioner is bound to be competent to give a correct opinion, because the youngest member of our profession may be consulted in this, or any other difficult obstetric case, on commencing practice. In proof of the correctness of this statement, I must inform you, that the first case in which I was consulted, after obtaining a medical and surgical qualification, was one of this kind, in which a former classical tutor of mine felt deep interest. He was most anxious to know whether it was safe for a lady with excurvation of the dorsal spine might become a mother with safety; and I replied, after examination, in the affirmative. She is now the mother of several children.

The second case in which I was called on to afford aid, was one of hæmorrhage after the expulsion of the placenta; the patient was in the greatest danger, but fortunately affusion of cold water on the abdomen saved life. I mention these cases to prove to you, that you must carefully and assiduously study every form of disease, and do not allow yourselves to be imposed on or duped by the respective examiners that the maladies on which they choose to examine you are all important. An educated medical practitioner despises all partitions of human infirmities; because he knows, in spite of corporate distinctions, that medicine is one and indivisible. But to resume our present subject, I have to observe that the contractions of the pelvic bones are most frequent at the superior aperture, inlet, or brim of the pelvis; next in the oblique diameters (Velpeau), and more commonly in one than the other. Contraction of the bis-iliac or transverse diameter is the rarest of all, and is scarcely ever observed alone. The contraction of the antero-posterior, or sacro-pubic diameter of the brim of the pelvis, may be caused by projection of the promontory of the sacrum, or arch of the pubis; and in such cases the superior aperture of the true pelvis, inlet, or brim, is cordiform or reniform. When the symphysis pubis is depressed backwards, the brim of the pelvis assumes the form of the figure of 8.

When both oblique diameters are deformed, the superior branches of the pubis may, independently of the symphysis, so approach the promontory of the sacrum, as to form a triangle, or a trapezium, so that the extremities of the bis-iliac diameters form angles more or less acute or obtuse. Such pelves have been denominated *trilobate* or *trifoliate*, but with this peculiarity, that although the three segments are generally equal, at other times, the right, left, or anterior is smaller than the other two.

In some cases the pubic bones so nearly approach to the sacrum, that the antero-posterior diameter of the brim does not exceed two inches and a half (Jeuffrion, Maygrier, &c).

When one oblique diameter is deformed, the other is generally enlarged, according to Smellie*, Stein†, &c. But it rarely happens, unless when the sacrum is implicated, that the bis-iliac or transverse diameter of the brim is much contracted or impedes the progress of the infant. There is, in general, a space of four inches between the iliac fossæ. This deformity causes a roundness of the sacro-pubic diameter, and gives to the superior aperture an oval form, or that of an elongated heart.

In some cases, the contraction is confined to one side of the brim of the pelvis. Sir Charles Bell described the pelvis of a woman as affected with osteo-malaxia, in which the antero-posterior diameter did not exceed three lines, and the space between the iliac fossæ was only half an inch. Nægele describes the case of a woman, the mother of six infants, who suffered from osteo-malaxia, in whom there were but two lines on the left, and six on the right side, between the fourth lumbar vertebra and the superior margin of the symphysis pubis. We must always recollect that there are all degrees of deformity between these now mentioned and the natural dimensions of the brim of the pelvis. The *outlet* or *perinæal aperture* is occasionally contracted, but very rarely when compared to the abdominal or superior. Some maintain the inferior aperture is more frequently enlarged than contracted. When the pubis approaches the sacrum, or *vice versâ*, examples of which I now shew you, the coccyx and pubis will be more or less separated from each other. In fact, it may be maintained, as a general proposition, that the inferior aperture or outlet of the pelvis is enlarged when the superior is contracted, although it is possible that both may be simultaneously deformed. The approximation of the ischia, and the triangular form of the pubic arch, offer great impediments to parturition.

The coccyx may be retroverted or horizontal, and in the latter state very considerably diminish the long diameter of the outlet. I beg your attention to some instructive preparations corroborative of this fact. In some cases one ischium projects more or less into the outlet, while its fellow and the coccyx retain their normal position. In fine, the deformities at the perineal or inferior aperture of the pelvis are as numerous, though less frequent, than those of the superior. It is important to observe that the vices of conformation of the cavity of the pelvis are greatly modified by those of the superior and inferior apertures or straits, and generally coexist with them. They are caused by excessive curvature of the sacrum, or when it is not sufficiently concave, or when there is some osseous salliant point.

In the first case, the sacro-pubic and coccy-pubic diameters are contracted, whilst the antero-posterior diameter of the cavity is very much increased. At other times, though strongly curved, the sacrum is not less separated from the pubis, either by its base or apex. In the second case, the anterior face of the sacrum is flattened; the cavity of the pelvis may contract or enlarge.

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* Treatise on Midwifery. † L'art d'Accouch.

When the sacrum is too concave, and both apertures are contracted, the head remains so compressed or locked, that the forceps, craniotomy, or even the Cæsarian operation has been required. When it is too flat, the head descends with unusual rapidity, and may be arrested at the outlet. Both apertures of the pelvis may be deformed simultaneously, or one much more than the other. When the arch of the pubis projects inwards to the extent of an inch or more, the pressure of the infantine head must contuse or lacerate the bladder and rectum, and often induce vesico-vaginal, or recto-vaginal fistula. Here are specimens of this deformity of the pelvis; and on a future occasion I shall direct your attention to cases of the last-mentioned diseases, three examples of which are now in the hospital, as most of you can attest, under my care, but none of the sufferers was attended during parturition by myself, as appears by the clinical reports of their histories. Lastly, the cavity of the pelvis may be deformed by the inward projection of one acetabulum; examples of which were treated by Levret, Barbant, Lachapelle, and others.

Osseous and other tumours may diminish the dimensions of the brim, cavity, and outlet of the pelvis. Examples of this class will be given in the description of dystocial or preternatural parturition. Suffice it to state at present, that exostosis may exist of various sizes in every part of the interior of the bones of the pelvis. M. Velpeau cites no less than twenty writers, and the records of medicine afford fiftytimes the number, who have described cases of this description: some of the women died undelivered; others had the Cæsarian operation performed upon them, and the infants of more were craniotomised. (*Op. Cit.* 1835).

The records of obstetric medicine abound with similar examples. When the pelvis is deformed, its axes and planes must necessarily deviate from their natural directions. Thus, if the sacro-vertebral angle approaches the pubis, the depth of the pelvic cavity will be increased. The angle formed by the sacrum and spine in a healthful subject is one of 175 degrees, but it may be reduced to 120. In such cases the axis of the superior strait or aperture is considerably inclined forwards, and sometimes approaches the horizontal line. Here are pelves illustrative of this fact. (*Pelves exhibited and described*).

If the coccyx be fixed to the apex of the sacrum by the sacro-sciatic liagaments or anchylosis, and does not yield to the regressive motion during parturition, the plane of the inferior strait is depressed under the horizontal line, and may even become parallel with that of the superior strait. This derangement does not approach the perpendicular aspect of the outlet of the pelvis, or incline backwards, as might be supposed on a first view; but is directed considerably forwards, because the anterior aspect of the coccyx determines the direction.

M. Bello described a very rare and curious case of deformity, in which the outlet or perineal aperture looked forwards, and the brim or inlet backwards. The pubis was turned upwards, and the convex surface of the sacrum was downwards. The body of one of the last lumbar vertebræ was wanting, and the sacrum united at its base nearly at a right angle with the spine. The deformity was so great as to require the Cæsarian operation. (Trans. Med. t. xiii).

When the pubis is elevated, and the promontory of the sacrum is flattened, the axis of the superior strait approaches the vertical line, and sometimes the axis of the trunk. If, in such cases, the posterior surface of the cavity wants the curve, the superior and inferior axis may become parallel, although the plane of the inferior strait is strongly inclined forwards. This conformation renders parturition extremely difficult, and favours laceration of the perinæum. Lobstein was the first who directed attention to this deformity in 1807, and Velpeau has also described it in 1835.

I have thus submitted to your consideration, the normal and abnormal onditions of the feminine pelvis; I have illustrated them by the pelvic bones n health and in disease, with a view of instructing you, and enabling you o afford efficient medical aid to the dearest and most helpless of our fellow reatures, when they most require it.

CLINICAL LECTURE

ON THE TREATMENT OF

CHRONIC WHITE SWELLINGS.

By M. LISFRANC.

IODINE has been recommended internally. his medicine may have its advantages, but e must watch its action on the intestinal anal, which may become inflamed, and on he glandular system, which becomes atrohied under its protracted influence.

Employed locally, iodine possesses exiting properties; it is because the acute age is not always well distinguished from he chronic in white swellings, and in enargements in general, that we see it cause nflammatory attacks which threaten the fe of the patient, or at least the loss of limb. The hydriodate of potass, as an intment, is really only fit in chronic swelings.

The thermal waters are very often recommended to patients; but this is also a remedy that is often misapplied. We shall be easily convinced of this, by reading the observations published on this point. It is sufficient to say that the use of thermal waters has cured a certain number of white swellings, improved others, and been ineffectual in many instances. The difference that these white swellings presented, with regard to their symptoms, is not indicated. Thus we see many persons return without experiencing any amelioration of their disease, and many come back worse than before.

Warm mineral waters cannot be suitable in all cases: they are excitant, and in the acute stage they only exasperate the disease. On the contrary, in the chronic stage, their effects may be very advantageous. Their use should be suspended when the effect produced exceeds a slight degree of excitation, and when the acute state succeeds the chronic. We have dwelt on these principles, which apply to almost all chronic diseases which the waters so often exasperate and render incurable, because the indications are not observed.

The douche is an exciting remedy; it causes a shock on the place where it acts and exercises a species of shampooing (masage). Thus, if the swelling is in the acute state, it is evident that in most cases the inflammation will be augmented, and the affusion will do more harm than good. Consequently, this remedy is only fit for the chronic stage. There are simple liquid douches and simple vapour; also medicated ones, and amongst these sulphurous waters are mostly used. Baths vary according to the manner they are used: thus there are descending, ascending, and horizontal. The last is less active than the descending, but more so than the ascending. The shower-bath is less efficacious than the single stream. It may be administered at different heights, according to the greater or lesser degree of excitation we wish to produce.

Let us now study the effects of the douche, for this is an important point in therapeutics. First, it may not produce any effect, and if, after having continued it for eight days, there should be no effect, it must be rendered more active. But in other cases it causes rubefaction of the skin, and augments the size of the tumour some lines, either because the liquid is absorbed, or because it determines an afflux of fluids in the tumour; with that the skin is hot, and the tumour often becomes painful. Should these phenomena diminish and disappear after half an hour or an hour, the practitioner may continue the use of the douche. If, on the contrary, the excitation produced continues during the day and even the night, he should be cautious how he uses it the next day, or even the day after; for it might cause inflammatory symptoms that would be difficult afterwards to remove. In such cases we should suspend the use of the douche, in order to return to it if the circumstances should appear more favourable. Besides, compression is often employed at the same time; not, however, immediately after, but some hours later; in the evening, for instance, when the douche is applied in the morning. Lastly, the douche may lose its good effects, because the system becomes habituated to it; we must then suspend it, and substitute other remedies, until afterwards more favourable conditions appear. We must not omit to mention that the douche is usually used first every second day, and afterwards every day.

Ammoniacal liniments have been recommended in the treatment of white swelling; we reject these remedies in the acute stage, as irritating and hurtful. It is only in the chronic state that we can have recourse to them; besides, they are most frequently powerless and uncertain; we have very

often tried them, and have almost entirely renounced them, notwithstanding the great confidence in them that a surgeon of Paris has, who has always been more renowned for his intriguing spirit than for his medical knowledge. Should their use cause too strong an excitation, which is rarely the case, they should be suspended, and if necessary, replaced by antiphlogistics.

Mercurial frictions are used in doses of two or three drachms a day, without always intending to cause salivation, as indicated by the practice to which we have just now adverted. This remedy is used by a great many practitioners; it is indispensably necessary to examine the question that has been raised about its therapeutic properties; is it an excitant or an antiphlogistic? We shall proceed to consider the facts.

When used in certain cases of acute peritonitis, it has produced the best effects. Is it as an antiphlogistic that it acted, or does it possess some other property? On the other hand, it has been observed that in acute venereal affections, the administration of mercury sensibly augments the severity of the symptoms: a bubo, or a chancre, accompanied with very acute inflammation, perceptibly increases, if the individual affected is put under mercurial treatment either local or general.

Mercurial frictions have succeeded very well in cases of erysipelas; you have seen in my wards many cures that bear testimony in favour of this method, which is due to M. Ricord. But it has been proved in Germany that an ointment of simple hog's lard succeeds equally well in erysipelas. We have tried this remedy and found it efficacious. Mercury does not then possess more antiphlogistic properties than pure hogs' lard. We may add that the lard is most preferable. Its use has not to contend against the prejudices that exist in society against the use of mercury. Neither does the lard expose the patient to a salivation, as we have observed in the case of the woman, in number seventeen of St. Augustin's ward, who suffered from erysipelas of the leg.

If you consider mercury as an antiphlogistic, you should employ it in the treatment of the acute state of white swellings. In the present state of science this opinion may be maintained. For my own part, I am disposed to think that mercury is an excitant. I would only use it in the chronic state. It is well understood that the rules we have established for the usage of excitants in general also applies to this latter.

After the therapeutic agents already enumerated the next to be noticed is the ointment of hydriodate of potass, and the different combinations of iodine and lead, which occupy so prominent a place in the treatment of engorgements.

Authors have recommended these medicines without laying down the indications; perhaps they did not know them. It is, nevertheless, of the greatest importance to know how to manage those therapeutic agents that are very exciting. We have had an example in the case in our wards. We did not use frictions of hydriodate of potass, until by the aid of leeches and emollient cataplasms we had removed the pain, heat, and other symptoms of inflammation that belong to the acute stage. Notwithstanding these precautions, the hydriodate of potass reproduced the pain, and we were obliged to suspend its application to have again recourse to antiphlogistics. What would have been the results if the remedy had been used when there was pain and increased heat? This is a point of great importance; for if a swelling is attacked with subacute inflammation, the employment of excitants will then only augment it, hasten the alteration and disorganization of the tissues, and render an operation necessary, which is a thing above all to be avoided.

This ointment is employed in doses of a quarter of a drachm a day. In women's cases, whose skins are in general most delicate, frictions should be lightly applied: without this precaution, an eruption will mostly ensue; should this occur, the ointment must not be then applied; it may happen that the ointment will no longer produce any effect; we must not, from this circumstance, accuse the remedy of being ineffectual. Do we not often see mercury no longer act on individuals whose constitution has been, as it were, saturated; it is the same with regard to the hydriodate: it must then be suspended, in order to return to it afterwards, when the patient becomes prepared for it.

Finally, as it has been proved in physical science that a result is more easily obtained, with two agents that combine their action, than with a single one, in the same manner we shall succeed more quickly, if in concert with frictions, we take care to employ compression in accordance with the rules laid down in a former lecture.

Reviews.

A Treatise on the Prevention and Cure of Pulmonary Consumption. By Robert Little, M.D., Professor of Midwifery in the Royal Belfast College, Consulting Physician to the Belfast Hospital, &c. 8vo. pp. 160. London: Longman & Co. 1836.

Our author examines the origin of tubercles, and has no hesitation in asserting, that the granulations so frequently met with in

he lungs in the different stages of consumption are tubercles. In many dissections he made of the bodies of those who ied of typhus, he never observed the paque without the semi-transparent tubercles, and from the much greater size of he former than the latter, he was satisfied hat the smaller were in the primary and he larger in their secondary state. In prosecution of this subject, he comments upon he conclusions in favour and against the organization of tubercles.

"There is nothing connected with the subject of these morbid formations that has given rise to so much diversity of opinion, as, whether or not they are organized. It would appear to me, that one reason why there has been so much variety of opinion in this respect, is owing to the very different stages at which they have been examined. For instance, a person would arrive at a very different conclusion relative to their organic or inorganic nature, if he were to examine them with care at various stages. This is a thing, however, which is very seldom practicable, unless a patient be carried off by some acute disease, such as typhus fever, before the morbid formations have been long in existence. From the extensive opportunities which I have enjoyed, of examining not only pulmonary tubercles, but also those of the absorbent glands and other parts of the body, I have no hesitation in saying, that I consider them, during their primary or early stage, organized bodies; but, in process of time, by a series of changes which they undergo, they are deprived of their vitality. I am, therefore, decidedly of opinion, that the growth of a tubercle, and its subsequent conversion into a caseous or liquid state, are as much entitled to the appellation of vital operations, as the formation of a phlegmonous swelling and its subsequent conversion into a liquid or purulent state. When any of the absorbent glands which are situated about the neck, or in any other superficial situation, become tuberculous, it is no uncommon thing for them to be afterwards reduced to their natural size and structure. Now this is a thing which would not be at all likely to take place, if such increase of size was entirely owing to the deposition of inorganic particles.

I conceive that the first step in the formation of these morbid growths, is the effusion of a certain quantity of coagulable lymph, into whatever tissue or part is about to suffer from their presence. In the first place, this lymph is organized; and after that has taken place, the increase in size, and all the subsequent changes which occur, are accomplished by its own peculiar powers and actions. No matter what may be the nature of a new growth, or how dissimilar it be in its structure to the parts in which it is formed, still, if possessed of vital properties at all, it must be connected with them by that vascular union common to every organized part of the body. After tubercles are therefore once formed, they must grow by their own vital actions; but they must, at the same time, derive the materials of their growth from the surrounding parts. It would thus appear, that such new formations as those in question, and the surrounding tissues, must affect, and be affected by the physical and vital conditions of each other.

"Tubercles may acquire a considerable degree of density, and may also attain a great size, and afterwards remain in an inactive state for a great number of years. This is, however, unfortunately the case only in a very small proportion of patients; for we find they are mostly changed, with very great rapidity, into a liquid or purulent state, after they have arrived at a certain magnitude and density. I think it might be laid down as a rule, to which there are only a very few exceptions, that, in cases of tubercular infiltration, the change from the solid to the fluid state takes place much sooner, and is effected with much greater rapidity, than when the disease assumes the distinct form; and again, when tubercles are very numerous, although quite distinct from each other, the same change will occur much earlier, and go on with much greater rapidity than when they are few in number, and remote from each other.

Dr. Little dissents from the opinion of Dr. Carswell and other pathologists, that tubercles increase in size and density as inorganic bodies. He has repeatedly found softened tubercles with sound tissues surrounding them, which shews that the morbid changes through which they pass, are effected by their own vitality, and not by that of adjacent parts. He goes on to observe:—

"I think there cannot be a question that inflammatory excitement, when it occurs in the vicinity of a tubercle, has a most powerful effect in accelerating its change from a solid to a fluid state, by certain alterations which it produces in the condition of its nutritious and absorbent vessels. This is, in fact, clearly demonstrated by what occurs with regard to the softening of the tuberculous glands situated about the neck, and other superficial situations of the body when any irritating application is made to the integuments which cover them. If the enlargement of such glands was merely the result of the deposition of inorganic matter, it is not at all likely that the production of a certain degree of cutaneous inflammation

over them would give rise, as is frequently the case, in the course of a very few days or weeks, to their complete change from the solid to the fluid state. Now, this circumstance, while it tends to prove the effect of inflammatory action, in the vicinity of the morbid growths in question, in accelerating their conversion into a liquid or purulent state, is, in my opinion, one of the strongest proofs which could be given of their organic or vital nature. It very frequently happens, with regard to superficial tuberculous glands, that they remain for a considerable length of time in a very solid state, and that they are afterwards changed so far in their consistence, as to become quite soft; and all this has taken place without the least symptom of any cutaneous inflammation. If it would be, therefore, right to apply to tuberculous disease of the lungs what is observed to take place with reference to a similar diseased state of the superficial absorbent glands, it must appear, that while on the one hand inflammatory action accelerates the process of softening, on the other this will take place when there is no such action present in any of the tissues which are contiguous to the morbid growths.

"After the process of softening has occurred in pulmonary tubercles, I am inclined to think, that the ulcerative inflammation, which sooner or later ensues in the neighbouring tissues, is excited by the irritation of the changed tubercular matter. It is a very curious circumstance, with regard to that ulcerative inflammation which takes place for the purpose of allowing tubercles, when changed into the purulent state, to be discharged from the lungs, that it occurs in such a large proportion of cases between the matter to be removed and the bronchial tubes, and so seldom with the cavity of the chest. Speaking from my own observation, I would say, the matter in question is not discharged into the cavity of the chest, in any quantity whatever, in more than one case in twenty-five.

"The caverns left after the discharge of pulmonary tubercles, must necessarily assume very different appearances, and be of very variable degrees of extent. Their interior will, for instance, be, in some cases, of a large size and irregular shape; but, at other times, it will be small, and of the most regular form. The fact is, the size and appearance of the caverns in question are liable to vary as much in every respect, that it would be quite impossible, as far as extent and figure are concerned, to give any description which would be at all generally applicable."

Our author gives a very full account of the causes of consumption, among which he places great stress on debility, however induced. He does not believe that acute inflammation most favourable to the development of tubercles, but rather passive congestions.

"We very seldom find that such morbid growths take place in the lower lobes of the lungs, where acute inflammatory action is of so much more frequent occurrence than in the upper: but again in the upper lobes, they are of very frequent occurrence, although these are not by any means so subject to accute inflammation as the lower; but while this is the case, the upper are far more liable, in consequence of the very slight mobility of the corresponding portions of the walls of the chest, to a more permanent state of vascular congestion. If any organ in the body be kept in what might be called a state of permanent plethora, it will be much less likely to suffer from acute inflammatory excitement than when its vessels are distended to that degree only which is necessary for the due performance of its peculiar actions and functions. An over-distended state of the blood-vessels of any part of the body tends to blunt its sensibility, so that it is much less liable to have its actions suddenly deranged than when that is possessed in a much higher degree. It would therefore appear to me, that from the different degrees of permanent vascular distension which exist between the upper and lower lobes of the lungs, is to be explained the great difference between them, respecting the frequency of the occurrence of tubercles."

Bayle, Laennec, and other eminent pathologists, deny that inflammatory action is favourable to the development of tubercles, while Broussais entertains the opposite opinion. Our author dissents from both conclusions, that vascular congestion has most to do in predisposing to the changes under consideration. Laennec, Bayle, and others do not consider catarrh as an exciting cause of consumption, and instance its frequency on the sea-coast, where phthisis is of rare occurrence. They consider it an effect and not a cause of the disease. Our author agrees with them to some extent, but contends that all those mechanics who inhale dust and irritating vapours, first suffer from catarrh, and sooner or later from consumption. Pneumonia, pleuritis, and typhus, are ranked among the predisposing causes; and hæmoptysis as an effect. Among the causes are the following, which deserve attention:—

"I do not know any one cause of pulmonary consumption which is more general in these countries, than that of the immoderate use of ardent spirits; but this is more espe-

THE

London Medical and Surgical Journal.

No. 7. SATURDAY, MARCH 12. Vol. I.—(1836).

CLINICAL LECTURE ON A CASE OF TYPHUS FEVER.

BY PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

Case—Previous History—Progress after Admission—Dr. Carswell's Report of the Post Mortem Examination—Professor Thomson's Clinical Remarks on the Case—Diagnosis and Prognosis—Treatment of Typhus Fever Blood-letting—Tartar Emetic—Calomel—Purgatives—Wine and Chloride of Soda.

Gentlemen—I shall make a few observations upon a case of typhus fever, of which the following is the description. It is to be regretted that a more satisfactory previous history of the case could not be obtained: the patient was unable to give any account of her indisposition on her admission, and the following is the previous history obtained from her sister.

The patient had been living in a very confined neighbourhood: she has had very hard places as servant, and been subjected to deficient and unwholesome food. She began to be ill on the 8th of the present month: she first complained of swelling and soreness in the throat, as though she should be choked; she was not hoarse; she had at the same time a dry cough; she attributed all these symptoms to getting wet through and not changing her damp clothes; soon afterwards she became very weak and drowsy, so that she was obliged to keep her bed; she had some shivering fits, and at times was very hot, but did not perspire; she had no appetite, and her thirst was very urgent. On the 13th she threw up a quantity of a dark-coloured coagulated matter like blood, mixed with other matters, from the stomach, and she complained of great pain in the bowels, and of all the limbs; and, once or twice, of pain in the head and giddiness, cramps and numbness of the legs, and of numbness of the arms; the abdomen was distended, felt hard, and very hot; and it was on this day that the tongue, teeth, and lips were observed to be covered with a dark brown matter, and very dry. In the evening, and during the night of the 14th, the bowels were very much relaxed—the fæces were of a dark green colour, and exceedingly offensive: her bowels had not been opened during the nine previous days. On this day she commenced raving a great deal at times, and in the intervals there was low muttering delirium; she pointed, and beckoned as though she saw something, and occasionally she was quite rational. She was constantly slightly flushed in the face, and her eyes had been much redder than on her admission into the hospital. She became gradually worse from the commencement of the attack, and was attended by a surgeon, who gave her some powders containing calomel and Dover's powder. On the 14th a mustard poultice was applied to the abdomen. On the 15th six leeches were applied opposite the stomach; she was bled twice, to rather more than a pint each time; syncope was not produced by the first bleeding; after which bleeding she expressed herself as somewhat relieved of the abdominal pain. At the commencement of the attack a rash appeared all over the body, oft a dark red colour, and the surgeon tho ugh it might be the measles. About four mon ths ago the catamenia were suppressed by exposure to cold, and did not appear for three months, and at the last menstrual period they were very scanty.

At the present time (Nov. 16th), there is a great muscular debility, and a great expression of langour and anxiety in the countenance; the face is slightly flushed; the eyes are red and suffused; the pupils are contracted; there is low muttering delirium and somnolence; the articulation is indistinct; there is no preternatural heat of the scalp; the pulse is 110, and weak; the respiration is rather quicker than natural; she has slight cough and expectoration, and on auscultation the mucous and sonorous rattles may be detected; the skin is warmer than natural, and dry; the mouth is dry; the tongue is dry, red, and glazed, with a dark brown streak in its centre: the teeth and lips are covered with dark brown sordes; she has no appetite; her thirst is very urgent; the bowels are not open; in-

pain is caused by pressure over the
e of the abdomen, which is slightly
nded; she says she has no pain in the

h her admission, the following medicine
prescribed:—
℞. Hydr. submur.;
Pulv. ipecac. co., āā gr. ij.
. Ft. pulv. quarta quaque hora sum.
uli Bovini Oj quotidie.
ov. 17th. The bowels have not been
ed; there is no essential difference
e yesterday. The head was shaved
ay; there is no preternatural heat of
scalp.
Habt. ol. ricini, ℥vj, statim.
8th. The fæces and urine were passed
luntarily yesterday, after the castor oil;
fæces were of a blackish green colour,
mixed with blood; the pulse is 115, and
k; the skin is cooler and dry; the pupils
contracted; there is slight tremor of the
ds, and of the muscles of the face; and
there is low muttering delirium. She
ordered to continue the powders.
℞. Infusi angusturæ, ℥vj;
Extracti cinchonæ, ℈j;
Acid. muriat. dil., ℥j.
. Sumt. Cochla ampla ij 3tia quaque

he was ordered to take a small cupful of
e wine whey occasionally.
8th, 5 P.M. The pulse is 115, and slightly
nicular, and weaker than in the morn-
; the whole surface of the body is cold
dry; the bowels have not been opened
ay.
9th. Two parts of white wine, and one
warm water, were ordered this morning
e given to her frequently. The skin is
ewhat warmer than it was last evening;
pulse is still frequent, and easily com-
sible, but stronger than it was last
nt; the tongue is protruded with effort;
dry, covered with a dark brown matter,
retracted slowly; her thirst is great;
bowels have been opened to-day—the
es were of a dark green colour, and of a
y fœtid character; these, with the urine,
e passed involuntarily. The alterna-
s of low muttering delirium and somno-
y continue; there is tremor of the
er extremities and face; there is still
essive pain caused by the slightest pres-
e over the abdomen.
10th. She has continued taking the mix-
e of white wine and warm water, which
been given to her frequently; the pulse
24, stronger, and rather more regular;
skin is warmer, and quite dry; the
gue, mouth, and lips are exceedingly
, the former is deeply fissured and very
wn; the countenance is expressive of
at langour and sinking, and there is a
uliar dull, sunken appearance of the
s, which are occasionally turned up for
e length of time; the pupils are con-
tracted; the tremor of the hands, and of the face and forehead, is greater; there is slight subsultus tendinum; the pain is very great on pressure over the abdomen; the pubic region is distended by the bladder being filled with urine. She has raved a little to-day, and attempted to get out of bed.

Extrahatur urina ope catheteris;
Augeatur extr. cinchonæ ad ℈ij;
Augeatur acid. muriat. dil. ad ℥iss.

The white wine and warm water were ordered to be continued. The catheter was introduced, and a large quantity of urine, of a strong animal odour, drawn off. She was rather more quiet after its introduction.

21st. She died early this morning, in the presence of Drs. Thomson and Carswell.

Examination twenty-seven hours after death.

The following is a report of the post-mortem appearances, which Dr. Carswell very kindly drew up for me:—

Small Intestines.—These intestines presented externally their natural colour and dimensions. When laid open they were found to contain throughout their whole extent, but more especially in the duodenum and jejunum, a fluid matter of a pultaceous consistence, strongly impregnated with yellowish green bile. The quantity of this matter was considerable in the upper two-thirds of the intestine, much less in the inferior third, where it was also somewhat more consistent, and of a fæculent character. All the coats of the intestine were very thin, and, compared with the nutritive condition of the body, might be said to be atrophiated. The mucous membrane generally was almost transparent, had nearly lost its villous character, and was so soft as to break down under pressure between the finger and thumb. It was besides, pale, except in a few circumscribed portions which presented slight capillary injection. The glandulæ solitariæ were very conspicuous, about the size of pins' heads, pale, and studded the greater part of the mucous surface, although much less numerous in the ileum than in the other two divisions of the intestines. The glandulæ agminatæ might be said to be in the healthy state; their colour, consistence, and dimensions being natural, and presenting only the not uncommon appearance of a dark point in the centre of the individual follicles of which these glands are composed. This appearance, as well as the presence of the glands themselves, was most conspicuous at the termination of the ileum in the caput cœcum coli.

Large Intestines.—The caput cœcum presented in a very marked degree all the anatomical characters of acute inflammation. The whole of this part of the intestine was of a deep red colour of various degrees of intensity, produced partly by capillary injection of the mucous membrane, and

partly by the effusion of blood into the submucous tissue. In numerous parts of this inflamed surface the mucous follicles were seen either enlarged, partially ulcerated, or entirely destroyed; in other parts, the redness was replaced by a dirty yellowish green substance, in the form of patches or stripes of various extent, which, when examined narrowly, was found to consist of a fibrinous exudation, raised nearly a line above the inflamed surface of the intestine, of the mucous membrane and follicles, both of which were carried away along with this substance when an attempt was made to remove the latter with the edge of a scalpel. The follicles and mucous membrane in these parts appeared in fact to be in a state of sphacelus, the peculiar colour which they presented being, however, produced by the imbibition of the colouring matter of the bile, and liquid fæces, of which this intestine contains a considerable quantity. The odour of gangrene was not, however, perceived. Appearances of a similar kind existed in the remainder of the intestine, but in no other portion of it were the acute inflammatory characters either so marked or so extensive as in the caput cæcum. There the inflammation had succeeded to its occurrence in the inferior portion of the intestine, more especially in the sigmoid flexure, the mucous membrane and follicles of which presented throughout the same dirty yellowish green colour observed in portions of the cæcum. The follicles were indeed much more enlarged in this situation than in the cæcum, projected considerably above the surface of the mucous membrane, the greater number of them presenting a large circular orifice or circular ulceration. That the discoloration and disorganization of the mucous membrane and follicles were consequences of acute inflammation was obvious from the presence of this latter state in the mucous membrane in the vicinity, which was very red and vascular, and presenting only here and there either simply the enlarged follicles without the discoloration or exudation described, or the latter appearance in the form of a thin film or merely isolated points or small spots. The rectum presented these characters of the primary or acute state of the disease, and also the transverse arch of the colon, in which they were less extensive but more advanced.

The mesenteric glands were but slightly if at all enlarged, pale, and of their natural consistence.

The stomach contained a considerable quantity of a bilious fluid. Liver and spleen healthy. Kidneys rather pale. Contents of the cranium and thorax not examined.

This, Gentlemen, was evidently a case of the typhus gravior of Cullen; it is distinguished from the milder form of the disease by its complication with visceral inflammation, congestions of the capillari and a condition of the circulating flu which favours its transudation; and to th source we must ascribe the vomiting mix with blood, which is stated to have occurr on the fifth day after the fever made i attack. The abdomen also, at this tim felt hard, distended, and painful; and it w probably then that the inflammatory acti was set up, and that the disorganizati observed in the greater intestines on disse tion commenced.

The torpid state of the bowels, whi existed for a long period (nine days), is no means uncommon in this form of typh fever; and, generally, the diarrhœa when occurs after such a torpid state of t bowels, continues through the remainder the attack, which, however, was not the ca in this instance. Truth obliges me to sta that there was very great mismanagement this case before she came into the hospit The bowels ought not to have been n glected in that manner; it is lamentable see the carelessness and ill-treatment which some poor people have been subject before their admission into the hospitals.

I am rather surprised, too, that the ra which appeared early in the attack w mistaken for measles, as it is by no mea an uncommon occurrence for a miliary vesicular eruption to appear in the ear stage of typhus; it has none of the appe ances of the measles; not the horse-sh appearance of the eruption in measles; eruption in measles is generally in patc too, which was not the case in our patie the eruption was probably merely miliary eruption from the low state vitality, and bad state of habit of the patie

On her admission into the hospital th diagnosis was too well marked to be m taken; the red and suffused eyes; the muttering delirium; the great torpidity the patient; the condition of the tong which was red and glazed, with a dark bro streak in the centre; and the sordes co ing the teeth and lips, were landmarks guide our decision that could not be m taken.

The prognosis was very unfavoura There was not the usual cerebral distu ance which we find in typhus gravior; had the abdominal symptoms been o milder character, we should have give more favourable prognosis, but the moment I saw her, I was fearful disorga tion had commenced.

The cerebral disturbance was somew aggravated by the retention of the urin large quantity of which was drawn off means of the catheter, after which she came less restless. I wish particularly direct your attention to the unloading bladder in fevers generally, and in ty gravior particularly it ought never t overlooked. The retention of urine is

y to produce cerebral mischief. I have the neglect of relieving the bladder, uce symptoms which have led on to a termination; and, on the other hand, most threatening cerebral disturbance de, almost immediately after relieving distended bladder. It is, therefore, of t importance to place the hand on the men, and not trust to the quantity that have passed. It ought to be drawn off e in the twenty-four hours.

n this case there was scarcely any inter- ion of the pulse, very little tremor, or ultus tendinum, indicating that the n was not the organ principally affected. lthough there was some cough at the mencement of the attack, yet the af- ion of the thoracic viscera was trivial, sequently, it was to the abdominal vis- that our attention was chiefly directed; if benefit had resulted from any treat- nt, it must have been in endeavouriug to rcome the inflammatory action still ex- g in the abdomen; but it had proceeded ar too great an extent. In all cases of hus fever, your examination ought to be ected more particularly to the state of abdominal viscera, as affording the most portant feature in this class of diseases; he post-mortem examination, therefore, attention was directed to the alimentary ans.

The state of the mucous membrane is so l described by Dr. Carswell, that it needs comment: as far as my own experience s, I have never seen the greyish green our of the colon and rectum to any ex- t, but in protracted cases; Louis says y seldom occur before the twentieth day the fever, but most usually in those that on to the twenty-fifth or thirtieth day. far as relates to the mesenteric glands, trition might have been carried on as well in health; they were not altered in the st: the liver, spleen, and kidneys, were ry healthy; the latter were rather pale, t presented no change of structure.

Dr. Carswell mentioned to me, that in al- ost every instance of typhus gravior that had examined on the continent, and se had been very numerous, he had found me disease of Peyer's glands. Now, in is case, there was not the smallest ap- arance of disease in any of these glands, cept the small dark point in the centre of ch gland, by which each individual gland ight be counted in the groups. This ap- arance is sometimes found, however, in phus gravior in this country; but it is a rious fact, that in the greatest number of ses in our hospitals, although the utmost tention has been paid in post-mortem xaminations, the morbid appearance of e glandulæ agminatæ have been much rer than on the continent; I have never en any marked morbid appearances in em in this country; on the contrary, as in our case, I have frequently seen Brunner's glands, the glandulæ solitariæ, more than naturally conspicuous, although Louis states that this is not so common as the disorganization of Peyer's glands.

I shall not occupy your time with a detail of the numerous exciting causes of fevers; very much depends, you are all aware, upon predisposition, habit of body, and the condition of the mental powers at the accession of the disease: neither shall I take up your time by enumerating the different hypotheses which have been formed on that subject; as to the hypothesis which has lately been raised in this country with respect to the changes in the blood, in my opinion it should be received with caution; these changes in the vital fluid are not to be regarded as primary, but as the consequences of fever.

We will now proceed to the

Treatment.—In this case very little opportunity was afforded to be useful to the patient. I am happy to say, that in those cases of typhus that have come into this hospital early, we have not lost a single patient: we must expect to lose them when they come in at such a late period of the disease. Generally the large abstraction of blood in this fever, as in this case, is bad practice: in no case, when typhus is complicated with disease of the chest, head, or abdomen—in no cases certainly in London—are large abstractions of blood warranted. Local bleeding is required, and beneficial and absolutely necessary, to relieve local congestions: but I have seen much harm from the large abstraction of blood, even in the early stage of typhus. Local bleeding should be followed by tartar emetic, calomel, and opium. When I say tartar emetic, I wish it to be understood, gentlemen, that in cases of typhus fever, where the mucous membranes are suffering, as indicated by tenderness of the abdomen, and red tongue, although I should give it, I should not give it in the large doses required in serous inflammations. In serous inflammations, the manner by which it acts, is by its setting up a subacute inflammation over the whole of the mucous surfaces, thus operating as an extensive counter-irritant; and much more effectually than could be done by any application to the surface of the body. We find that wherever the tartar emetic is given in large doses, as soon as it produces its beneficial effect, no vomiting takes place; and the reason is, that when inflammation is set up, the absorption of it does not take place. If you give it in small doses, it is absorbed speedily; and given in large doses, the vomiting only occurs in the first instance. In typhus fever, at its commencement, after local bleedings, tartar emetic should be given in small doses, and at intervals of three or four hours, not to produce vomiting, but to counteract inflammation.

On the same principle, purgatives given to any extent, are always injurious, and particularly acrid purgatives. I know that I am stating opinions, with respect to purgatives, contrary to those of an individual of high reputation, who has just paid the debt of nature—Dr. Hamilton; but I have seen much injury done by purging; I have seen it often followed by syncope, and produce a whole train of bad symptoms, which were never got rid of; and yet I recommend you to give calomel: we know that, although when calomel is taken into the habit, it operates as a stimulant, yet, when it is applied to mucous surfaces, it operates as a sedative. When the stomach is in an irritable condition, and obstinate vomiting ensues, nothing allays the irritability of the organ so much as calomel in large doses; a portion only is taken in, and operates upon the capillaries.

With regard to the wine that was given in this case, it was necessary; the strength was sinking rapidly; and it was only to be supported by wine. I am no friend to wine except in the sinking stage of typhus; instead of stimulants we find beneficial effects from tonics, such as angustura and cinchona barks; and wine, except in the sinking stage, does harm.

I have invariably seen good effects from the chloride of soda, administered both by mouth and injection, when there has existed a tympanitic state of the abdomen; the gaseous sulphuretted hydrogen distending the intestines, and operating as a morbid sedative on the nervous system, is destroyed by it, and the distension yields.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(Illustrated with Numerous Plates).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE VI.

History of Male Obstetricians (continued).

Eighteenth Century.—The impulse given to science in the sixteenth and seventeenth centuries, was greatly increased in the following age; and all Europe was influenced by it. A vast number of authors on obstetricy and diseases of women, flourished in the eighteenth century; the most distinguished of whom deserve notice, while the rest must be omitted, in order to diminish, as much as possible, the tediousness of obstetric history.

In 1701, Deventer's work appeared at Leyden *. This author and his wife were obstetricians †. He gave an admirable description of the axis of the superior aperture of the pelvis, and also of the concavity of the sacrum. He described the progressive development of the gravid uterus, and the obliquities of this organ. He maintained that uterine action during labour was expulsive, that premature parturition was in some cases required after the seventh month of pregnancy, and that it was bad practice to excise or amputate the arm in shoulder or brachial presentations. He judiciously remarked that version was easily accomplished before the rupture of the membranes, no matter how the infant may present. But he advised some erroneous and dangerous points of practice, as passing the fingers into the vagina, to depress the coccyx, allowing the infant's arms to remain on the sides of the neck, praising pills of his own invention, and pinching the fingers of the infant to make it withdraw its hand into the vagina or uterus.

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* Observat. sur le Manuel des Accouch., 1701.

† I might name a distinguished provincial surgeon, who with his two unmarried daughters, are now most popular obstetricians.

He gave numerous plates, some of which illustrated, very accurately, the erent obliquities of the uterus.

Soon after this period, three writers of distinction made their contributions bstetricy, at Paris. The first of these was Amand, whose work scarcely tained any novel information *. The author described the different spes of parturition, and of hæmorrhagies, with imperforation of the vulva, ersion of the uterus, &c., and a particular kind of fillet for the extraction the head.

The next writer was Dionis, who published his treatise, in which he conded, against Mauriceau, that the bed required to be peculiarly adjusted for turition, that the infant ought to be washed with red wine, and that more n one woman in a hundred stood in need of assistance during labour †. was also of opinion, that each twin was enveloped in its own membranes; d he could not agree with Mauriceau, that the obstetrician was likely to ze the foot of one infant for that of the other. He said that Mauriceau's et was an original invention, but one whose application was impossible.

The successor of Mauriceau was De La Motte, a French provincial practioner during forty years, whose work was published in 1718. He was ery judicious obstetrician, though some of his opinions were manifestly roneous. Thus, he considered that the somerset of the infant, or the descent its head towards the orifice of the womb before delivery, was a chimera. e held that presentations by the breech and feet were natural; that isting of the navel cord round the neck, body, or limbs of the fœtus, reded its escape during parturition; and that whatever part of it presented, ovided delivery took place without assistance, ought to be considered nal labour. He deemed it useless to plug the vagina, with a view to prent the descent of the umbilical cord, or to push the arm into the vagina hen searching for the feet. The uterus, in his opinion, became much icker during than before pregnancy, which was contrary to the conclusion Mauriceau. He defended midwives against the unjust censures of the st named obstetrician, and Peu. His work, upon the whole, was very perior to that of the last named author. He was exceedingly averse to the e of instruments, and during thirty years, he had only employed the otchet twice. He did not, however, make any allusion to the forceps, hich proves that it was not generally known in his time.

There were a few more distinguished writers on puerperal and other diseases women about this period, whose names may be mentioned. Among these ere, Helwigs of Leipsic, in 1700; Languis of Saxony, same year; in 1703, r. Friend of London; in 1705, Santorini of Venice; in 1708, Boerhaave Leyden, Rodolphus of Lyons, and Palfyn of Paris; in 1712, Fressart of eige; in 1715, Ferenzoni of Pisa; in 1717, Goldhammers of Muhlhausen; nd in 1720, Harris, on diseases of infants.

A few other practitioners acquired great reputation at this period; among ese were, Desforges, who became blind without relinquishing his practice Dionis); and Lecuisse, who was in the habit of sleeping by the side of his atient until the escape of the waters (Mauriceau); and Boucher, who reained in an adjoining chamber to that of the parturient woman, until his ervices were required. It was said that he acted so while attending the ueen, which was also the habit of Julien Clement (Dionis, Velpeau). The st named accoucheur was not the first who introduced male obstetricians Velpeau).

In 1722, M. Dassé of Paris published an essay, in which he advised com-

* Nouvelles observations sur la Pratique des Accouch. Paris, 1713.

† Traité gen. des Accouch. Paris, 1718.

pression of the abdomen, to contract the uterus in cases of hæmorrhage, when there is no action of the organ. His method consisted in grasping the parietes of the abdomen, pressing them on the uterus, and thus exciting the latter organ to contract.

The following year, Dr. Maubray published his work, which was greatly abused by the critics of the time *; but, nevertheless, had great circulation. The author was the first lecturer on obstetricy in London, and he delivered his discourses in Bond Street. He strongly opposed the use of all instruments, and contended that all difficult labours might be remedied by manual operations.

In 1729, Dr. Simson of St. Andrews published his delineations of the uterus; and in 1733, Dr. Chapman placed before the profession a description of Chamberlen's forceps †, and he also was the author of a treatise on midwifery. He was the second obstetric lecturer in London. He was a great advocate of the short forceps, though he knew it was inapplicable when the head was above the brim of the pelvis. He inveighed against the use of the crotchet, and declared that he had known many infants murdered by it.

About this period (1734), Dr. Hody published a clinical report of cases treated by Mr. Giffard, who had used the forceps before Chamberlen's invention was known to the profession; and the work contained a plate illustrative of the instrument. The cases of this obstetrician were two hundred and twenty-five, and in some of these the placenta was attached over the orifice of the womb. Giffard also maintained that the extraction of one lower extremity was sufficient in the operation of version.

In 1736, Dr. Dawke published his "Vademecum for Midwives," and in 1737, Dr. Bracken his "Midwives' Companion."

The next British author was Sir Richard Manningham, who opened a ward in the parochial infirmary of St. James's, Westminster, for the reception of parturient women; and this was the first British asylum for the practice of the obstetric art. This benevolent obstetrician was the author of a useful work, entitled "Artis Obstetriciæ Compendium," 1746, and the translator of Heister's obstetric essays.

A most important work had been published by Sir Fielding Oulde of Dublin, a few years before the last mentioned production ‡; in which he described the exact position of the infant's head, in relation to the maternal pelvis; and was the first who demonstrated the oblique direction of the head at the brim of the pelvis, the forehead being turned transversely or obliquely, and not from before backwards, or from pubis to sacrum, as was generally supposed at the time. "The truth of which observations," says Dr. Denman, "has since been fully proved and acknowledged." He was also the inventor of a perforator, which he designated, "terrebra occulta;" the objections to which were, its smallness and weakness.

The next English work was anonymous, and was a transcript of Astruc's lectures §.

It is remarkable that neither Germany nor Switzerland contributed any works to obstetricy during the first half of the last century, with the exception of Heister's papers, published in his surgical works.

France had as yet the best systematic writers. The fame of Gregoire had spread through Europe, and attracted students from all nations, among whom was Smellie. He was no author, but he accurately described in his

* The Female Physician, &c. London, 1723.
† Edinburgh Medical Essays, vol. 3.
‡ A Treatise on Midwifery, &c. Dublin, 1742.
§ A Treatise on Midwifery, &c. By J. R—n. London, 1743.

ctures, rupture and retroversion of the uterus. He invented a strange ntrivance as a representation of the pelvis, and this was a wicker basket vered with leather *, and in which he demonstrated the mechanism of parrition.

About this period Puzos was appointed professor of obstetrics in Paris, d published a work on the subject †. This was an instructive and valuable roduction.

In 1743, Mesnard of Rouen invented a kind of forceps and curved rotchet, and published a very judicious manual, whose arrangement was fterwards adopted by Baudelocque ‡.

But the most celebrated French author of this period was Levret, whose orks remodelled obstetric science. He reduced the art of obstetricy to the ws of mechanics §. He described parturient action with a degree of minuteess which none of his predecessors had done. His treatise excelled all hich had been published before it. He modified the forceps, and adapted so admirably to the pelvis of the mother and fœtus, that it is still used in rance. It can be employed without danger to the woman or infant: and almost superseded the murderous crotchet.

It is worthy of mention, that in the year 1747, a Dutch obstetrician made nown "the secret of Roonheuisen," which was a simple lever, very little fferent from that now in use. This instrument was also the secret of De ruyn, Titsing, and even Camper—so proverbially silent were the Dutch bout their discoveries and inventions.

The Germans were always more candid and scientific than their neighburs, and accordingly, Rœderer, professor of medicine at Gottingen, pubshed the first of his numerous obstetric works in 1750. He gave excellent lustrations of the gravid uterus, and many judicious practical precepts; but e was much too partial to the use of instruments, and arrived at the untenale conclusion, that the ligature of the umbilical cord was unnecessary.

England too had her obstetricians at this period.

An important era in the history of obstetricy is that of Smellie, who ined to very extensive experience, which in his time was a rare occurrence, n eminent degree of sagacity and solidity of understanding, rarely observed all times. The first volume of his work was published in 1751, after he d been many years in practice, both in Scotland and London, and, as he mself informs us, had had more than nine hundred pupils to his lectures, xclusive of women. But he does not mention that which Dr. Douglas pprobiously charged him with, the indecency of suspending a paper lantern ver his door, having legibly inscribed upon it this announcement, "Midifery taught here for five shillings." Smellie's chief merit consisted in his aving applied the laws of mechanics to the relation between the osseous xcavation of the pelvis, and the form and mode of passage of the fœtal ead. From considerations of this kind he deduced improved and safer ules for the application and use of the forceps, which before his time was mployed in any way that was possible or most convenient to the operator, nd always applied forcibly and quite at random. He modified the form and mensions of Chapman's forceps considerably, and brought it very near to e common straight short forceps of the present day; and likewise altered dvantageously the perforating scissors used in craniotomy, by giving it a rojecting rest, calculated to limit the extent of its introduction. The plates

* Treatise on Midwifery, &c. By Smellie.
† Traité des Accouchem. Paris, 1759.
‡ Le Guide des Accoucheurs, &c. 1743.
§ Accouchem. Labor., &c. Paris, 1747—1780.

he published have, until lately, served as models for almost all that have appeared since, either in this or foreign countries.

Dr. Burton of York, contemporary with Smellie, was the original of Sterne's Dr. Slop. He was a skilful obstetrician, but tainted with the error common to many of his predecessors as well as successors, of being too fond of employing instruments. Besides a treatise on midwifery, Burton published a virulent letter, criticising and condemning most of Smellie's opinions and directions, which was answered by Dr. Watt, in his "Reflections on Slow and Painful Labours." It is worthy of remark, that in this latter publication, the cause of tedious labour is held to be want of irritation in the orifice of the uterus—an idea that in our own times has been assumed as original, and propounded so ostentatiously by Dr. Power.

Smellie's opponents were not limited to his medical brethren, for, in 1760, a most violent diatribe against him and all other obstetricians was issued by Mrs. Nicol, the follies and impertinences of which proved a complete antidote to the effect intended to be produced; and though at the time the book was extolled as prodigiously clever, and was translated into French, it is now unheard of, and unknown. This was an anonymous name.

IS MEDICINE AN EMPIRICAL OR THEORETICAL SCIENCE? AND HOW FAR OUGHT PATHOLOGY TO REGULATE PRACTICE?

Paper read before the Westminster Medical Society, Saturday, March 5, 1836.

By DR. UWINS.

The contrast of empiricism with theory implies, in one sense, an absurdity. "To think" it has been well said "is to theorize." Without some sort of thinking we cannot determine a single act; and, therefore, all our acts are strictly theoretical. I find an individual suffering pain; I give him opium; the pain almost immediately subsides. I meet with another sufferer from pain; I administer to him the same drug. Why? Obviously enough on account of having made the first observation—my inference being that the second patient will receive a like benefit with the first; here comparison and inference are palpably called into play—and the question resolves itself entirely into, not whether I have acted empirically or theoretically, but whether I have compared and inferred correctly.

In the second instance, I may have been foiled—and it behoves me to ascertain, or endeavour at ascertaining the source or circumstances of failure. I find that a particular condition of vessel—that a certain state of the external surface—that some circumstance connected with stomach condition, and many other particulars, may have been present, and probably have proved the hindrances to the hoped-for effect.

Here, then, I enlarge my theory, and limit my inference; and, in spite of opium receiving the systematic cognomen of an anodyne, I am forced to conclude that it is not altogether, and in strictness of terms, entitled to the appellation.

Assuming the presence of the above particulars to be the occasion of deficient efficacy, I now administer the drug, these circumstances being absent; but here my want of success may prove my generalization to have been too hasty, and again I am at sea—so that repeated observation, which leads to repeated deduction, are required, in order to establish the principle of opium's anodyne agency; and this is precisely the way in which medical science advances—in which the fallacy of successive systems comes to be exposed—the large quantity of dross with which they were amalgamated thrown away—while the real good which they contained is separated by the same process, and made to turn to practical and lasting account.

Before an audience such as that which I am now addressing, I ought not to lay down these truisms without apology. My apology is this: that some few evenings since, two of the ablest members of this Society agitated the question of the *modus agendi* of medicine; and the dispute, as it seemed to me, approached to logomachy, from the disputants—at least one of them—not sufficiently recognizing the difference between mode and essence; true it is, that we do not know, nor shall we ever know more than we at present do, *how* astringents bind, or *how* relaxants relax, or *how* opium mitigates pain, any more than we know the how and the wherefore of planetary motion; but this ought not to prevent an assiduous research into the laws of vital causation and susceptibility; and it is only as we learn laws of agency that we learn anything worthy the appellation of legitimate science.

The way then to add to our stock of learning is to see carefully to the accuracy of our conclusions—to admit nothing in our mental register but what will bear the

most rigid scrutiny—to reject loose analogies—respectfully to refuse submission to mere *verba magistri dicta*—to keep a watchful eye over our own tendencies towards unfounded partialities; and, perhaps, above all, to act of and for ourselves, in defiance of the dictates of system; and under the constant recollection that circumstances and incidents are to be subordinated to general and leading agencies.

Let me briefly trace the history of opinions since the science of physiology has been separated from those investigations which have to do with final rather than physical causation. By doing this, I think I shall shew that some good—some practical and lasting good—has ever been connected with a mixture—a large mixture of alloy and evil—in the enunciation of each successive system.

When, for instance, and to commence with—when Boerrhaave applied the physics and chemistry of his day to the explication of disease, he considered the blood obnoxious to vitiation in a great variety of mixture and essence, and hence deduced its relation to morbid being, according as it was too viscid, or to tenuous—associated with this, or mixed with that humour. Indeed, this great man, Boerhaaave, might be considered the father or founder of the humoral doctrine—a doctrine which still, in some of its modifications, lingers amongst us, and which at any rate gives a tincture to vulgar phraseology, when such language is employed as "sweeteners or purifiers of the blood," in application to therapeutical agency. Now, when in the pride and precision of present day philosophy, we feel disposed to condemn the humoral assumptions, we ought to recollect that the word alterative is even to this hour employed as descriptive of the good that purifiers accomplished, and that the latter terminology is scarcely more definite than the one discarded.

The Hoffmanic school borrowed from the solidism of Gaubius, and gave more attention to the nervous or fibrous part of the frame, as the *prima sedes* of modific impulse; hence we gained more definite notions of fibrous irregularity—which were enlarged and improved on by Cullen; and in these spasmodic schools were first broached those nervous and sympathetic notions, as influenced by the condition of the *primæ viæ*, that have still more recently been systematized into a body of practical inference, too sweeping and too generalizing.

Brown was a man of comprehensive mind and original genius. He, like a second Paracelsus, condemning and contemning all that had gone before him, proposed an explication of disordered essence, founded upon Haller's law of irritability—and in this system, prostrate as it now lies, under subsequent assumptions, there is a remarkable amalgamation of palpable error, with perspicuous, and powerful, and practical truth.

In the Elementa Medicinæ (which all who can trust their own judgment ought to read), there is to be found a vast deal of pathological precept, and therapeutic indication, that infused an energy and totality to medical principia which, previously, they had been without. The fault of this system is manifestly hasty generalization. Indeed, allowing to Brown, without limit, the rectitude of his leading propositions, the absolute inference must be, a reduction of all the sustainers of healthy integrity into one essential agency—an agency pervading the whole frame, subordinating to itself all that is particular, or in detail, and rendering nugatory any cognizance of visceral condition beyond that of its being under or above the standard of health.

But let any man of proper feeling and with a particle of taste, peruse his vigorous aphorisms, and he will find one and all of them stamped by the hand of genius, and impressed with a quantum of qualified truth; I mean truth which demands to be greatly qualified when the theorizer becomes the practitioner of medicine.

Local incident, said Brown, is nothing. Topical circumstance, said his immediate successors, is every thing. And the latter, in my mind, is as fallacious an assumption as the former.

Who is there among us of not many years' standing, that does not recollect the elaborate discourses of the late Dr. Currie, in order to prove that the liver is the viscus by the irregularities of which every thing vital is reiterated. Open up this Pandora's box, the liver, and you immediately see, when borrowing the vision of the able pathologist just named, the little devils of disease dancing or running about like so many ants in a molehill, and sending their emissaries to every point of the body's compass. And who may not recollect the fatal blow that was, or ought to have been given, to this hepatic omnipotence, by the circumstance that Dr. Currie, who thought and treated himself as an hepatic invalid, when he had paid nature's great debt, was found to have his liver, if possible, in a more healthy seeming than any other part of the frame.

It is not the liver, simply considered, but the whole of the digestive apparatus, to which attention should be alive, when theories or therapeutics are at work, says another school of pathology. Scrofulous affection! what do you mean by the term, beyond stomach irregularity? Gout *a capite ad pedem* has no other legitimate relationship than with the first passages. Rheumatism, you say, is induced by cold; that is a doubtful predicate; but even if cold have any-

thing to do with its origin and manifestation, the stomach is the organ regulating its course; and ventricular sympathies are to be looked to as explanatory of its peculiarities. Even syphilis itself is, properly speaking, stomachic; and *all* skin disorders are to be judged of and treated on the notion of deviation from digestive integrity.

You forget, says Dr. Clutterbuck and his disciples, that there is such a disorder as inflammation, and such a thing as a brain to be inflamed. The first passages, we know and feel, are not seldom much deranged in the full development of disordered states; but does not digestion, does not secretion, does not even the due peristalsis of the stomach and bowels depend upon the proper condition of the brain energy? and is there any other way of disordering this energy, than by the production of inflammation?

Scholastic names may be given to the various forms and degrees of those ailments which are registered under the general head and vague term of fever; but analyze these deviations from physical integrity and comfortable feeling—trace them up to their real origin, and it will be made evident that the alpha and omega of them, even including madness, and delirium tremens, and a vast number of other loosely denominated disorders, are all and each of them inflammation, and nothing but inflammation of the brain.

So much for stomach, cerebral, and hepatic systems. Pending, or indeed preceding a good deal of this, our countryman, Dr. Carmichael Smith, called the attention of the anatomist and physiologist to the structure and functions of the several membranous expansions in which the body abounds. Bichat, taking the hint, enlarged and improved the classification of membranous envelopments and internal linings; and very shortly nothing was to be talked of, or heard of, but serous, or fibrous, or mucous tissue. Now, in this topographical reformation, if it be permitted me thus to express myself, we find a great deal to approve, a great deal even to admire; but I apprehend that an impartial and thorough investigation of its practical bearings—or rather, of the practice which has been deduced from what may be called membranous pathology—will shew up a vast deal of fallacy, both of the negative and positive kind; by negative fallacy I would be understood to mean *that* rejection of bold and general reasoning, which the flimsiness of membranous proposition encourages, *that* detailed dwelling upon anatomical littlenesses which characterizes a great deal of the medical literature of the day. This nicety and minuteness falls in easily and readily with Gallic modes of deducing and inferring.

The French are an extraordinary, and a highly interesting people. All departments, both of science and art, are deeply indebted to the brilliancy and ingenuity of our neighbours; but ingenuity, and not much beyond ingenuity, is their prescriptive right; their perceptives, as phrenologists express themselves, are early and sedulously cultivated, while grand excursive views, vigorous flights, and darting upon harmonious totalities, are more familiar to the spirits, and more in keeping with the culture of Englishmen's minds.

I shall be laughed at, when I say—but, in spite of the derision I may excite, I will say—that there is a *poetry* in medicine as well as in everything else, which has to do with the intellectual faculties; and, let those who object to this announcement turn to their lexicons, they will there find that poetry means—what? *Power—that* something, which, when called out into act, proves gigantically effective; and, when therapeutic efficiency is concerned, turns readily the microscope of anatomy into the telescope of medicine—gives to membranous and muscular structure life and energy—subordinates local incident to leading principia—and, in a word, is comparatively careless of detail—shakes off with ease the membranous webs with which ingenuity and sophistry had enveloped and entangled truth, and comes to important and practical, and *effective* conclusions, long before your vascularist, or membranist, or visceralist had made up his mind as to the nature and extent of organic lesion.

Am I an enemy to industry and detail? Do I wish to assert that there are any royal or rail-roads to correct, and *ad rem* inference? If my remarks have led to anything even approaching to such doctrine, their design and tendency have been grossly misconceived.

But when I find such men as Broussais abroad, and Armstrong at home, dwell upon mucous tissues and their derangements, in the way they have done—when I hear, as I have heard, such a powerful man as Abernethy talk vaguely of the stomach with its dependencies, as the *fons et origo malorum omnium*—when a man of such acuteness as my friend, Dr. Clutterbuck, generalizes such opposite conditions of the brain, as are implied in *phrenitis, madness, delirium tremens,* and *fever*, into cerebral inflammation—when the ingenious and luminous Dr. Currie speaks of *all* disorder, as not only modified by, but originating in, hepatic disturbance, I am compelled, in spite of the sentiments of respect and esteem that I entertain towards these several authorities, to ask of myself, and of my own unbiassed observation, "Can these things be?"—and I am, moreover, compelled to discard a great deal of what these systematics inculcate, as both negatively and positively bad—erroneous in their primary postulates—false and futile in their practi-

al bearings—and, if I look a little further nd deeper into the essence of their fallacy, should, I am disposed to think, find that hey treat too much of living and active, as it were dead, inert, matter.

It is from this feeling that I hail with omplacence the dawn of a still more bright nthology than has hitherto broken upon he horizon of the philosophy of life, by the ssiduous attention recently given to the tructure and habits of the *prima-mobilia* of ll that is vital. Until within a very few ears since, nervous sympathies and ner-ous excitations had been discoursed of in nedical lectures and writings, with a vague-ess very much out of keeping with their mportance in the animal economy. Now, hanks to the labours of Magendie, of Bell, f Mayo, of Shaw, and of Wilson Philip, e have already obtained, and seem des-ned to receive still more valuable disco-eries, that shall prove in the highest degree seful both to the physiologist and the phy-cian. I am not without hope either; (my earers will say that I have been a long time *u nubibus*); I am, I say, not without ex-ectation that meteorological science may ome to combine itself with discoveries on he nervous habits—that electrical relations o the human frame may be stretched out nd methodized—and that the great variety bservable in disorders that are nosologi-ally the same, may some time hence be learly traceable to the invisible agencies hat are above, and about, and around us.

But the substantiation and exemplifica-ion of these principles I wish to make the ubject, shortly, of another paper. I have lready, by these crude remarks, and slight ntimations, trespassed too far upon the ime and good feeling of the Society, and I hall now conclude by an extract from a hilosophical writer, and an able and ami-able practitioner, the appreciation of whom may at the same time serve for my *amende honorable*, should I have been unwarrantably evere in my allusion to our neighbours on the other side of the Channel, and the quot-ing from whom will prove that I am ready to receive whatever is valuable and of good report, whether it come from across the Channel, or from across the Atlantic. It is right further to say, that the extract is taken from a little work by my friend Dr. Stew-art, which, "though small in volume, is great in value," and which, to my mind, is especially valuable, as it inculcates, in a pleasing and masterly style, some of the principles I have in this essay ventured to advocate.

"The causes of diseases," says the learn-ed, ingenious, and indefatigable inventor of the stethoscope, "are, unfortunately, for the most part beyond our reach; yet we learn from daily experience, that the parti-cular character of the causes occasions greater differences among diseases (espe-cially as regards their cure) than the nature and kind of the organic lesions. Many cases of pleurisy and peritonitis are equally un-tractable by venesection, as the local in-flammation of gout, or that which precedes hospital gangrene. I am far from calling in question the utility of studying diseases according to their anatomical characters. This study has indeed been my constant oc-cupation, and this work is entirely devoted to the exposition of its results. I am of opinion that this study can alone constitute the basis of all positive knowledge in medi-cine, and that we can never lose sight of it in our etiological researches, without risk of pursuing illusions, and of creating phan-toms in order to abandon them. It is not given to all men to reach, like Sydenham, that high degree of medical tact whereby we can safely disregard the details of diag-nosis, and direct our practice by the indica-tions only; and I believe that this great man would have been still more distin-guished as a practitioner, could he have ap-plied to the morbid anatomy of diseases, the same talent for observation which he shewed in the study of symptoms, and in the appli-cation of remedies. At the same time, I consider it no less dangerous to bestow such an exclusive attention on local affections as to make us lose sight of the causes whence they spring. The necessary consequence of this mode of proceeding is to make us frequently mistake the effect for its cause, and to commit the still more serious error of considering as identical, and of treating in the same manner, all diseases which pre-sent the same anatomical characters. The study of pathological anatomy," continues this able physician, "in making us ac-quainted with the existence of important or-ganic lesions, in many cases in which prac-titioners too much addicted to the exclusive observation of symptoms saw only cachex-ies, or alterations of the fluids, or at least nervous affections, has made us fall gra-dually into an error of an opposite kind; and among the present race of our pupils, many are as little disposed to acknowledge any nervous diseases besides the organic af-fections of the nerves, brain, and spinal marrow, as to admit any primary changes in the fluids of the animal body."

Reviews.

Seventh Annual Report of the Coombe Lying-In Hospital, and Dublin Ophthalmic Infirmary.

The following Report will show the in-sufficiency of the Rotunda Lying-in Hos-

pital, as to the wants of the poor of Dublin, and the mistake made by its supporters.

"In former Reports furnished to the Public, the great utility of this Institution, situated in the most wretched and impoverished District of Dublin, was clearly demonstrated; its necessity is further manifested by the fact, that since its establishment, now nearly seven years, 8,663 Females have been relieved—thus proving that the origin of this Institution had not its source in that spirit of benevolent enterprise that sometimes seeks to multiply means of relief to the poor, without reference to the capability of existing institutions to achieve that object. This consideration received the deepest attention from the founders of the present Hospital, among whom were to be found Practitioners of long experience, and who from that experience felt convinced, by witnessing daily scenes of misery and wretchedness through the want of local facilities, that the asylum for Lying-in Women at the northern side of the metropolis was not beneficially available, from its remoteness, to the extensive portion of Dublin known by the name of '*The Liberties.*'

"This cannot be better illustrated than by quoting the 'following abstract' from the introductory address delivered by Mr. Power, at the opening of the present Session. Speaking of the utility of the Hospital, he says—'It contains 50 beds, fitted up in a manner most convenient for this class of Patients, in spacious and airy wards; and situated as it is, in a densely peopled part of Dublin, with the comfort and convenience it offers, these beds are continually filled, so as always to afford the most ample practical opportunities. I cannot better exemplify the truth of this statement, than by submitting to you the following abstract, taken from the registry of cases kept in the house for the six months preceding the first of the present November. Within that period, I find 713 Females have been delivered within its walls, of which number 626 were according to the usual routine, or of what is termed the Natural labour of authors, and 87 of what may in general language be called departures from this course, involving the difficulties and requiring the management I have been endeavouring to explain to you; and as every thing connected with them is of importance on an occasion like the present, I shall beg leave to state to you the particulars of the latter—of these, 9 cases were of Breech presentations, 14 Abortions, 2 elbow presentations, 5 Twins, 4 attended with Hæmorrhages, 7 instrumental—of which latter in two, the Crotchet was used or the breaking up of the child, in order to extract it—two ruptured Uterus, and five retained Placenta; the remainder of these cases did not possess any thing in them strikingly remarkable, although coming under the head of irregular labour. There is also attached to the Hospital, what is termed, an extern department, or the giving assistance to females, who from any particular circumstance, cannot avail themselves of the comforts of the house, and are confined in their own homes, and from which a source of practical information is derived of a most extensive description; by referring to the registry of these latter cases, I find that within the same period, 811 Females have been delivered and attended through their confinements under its superintendance—of which number, 702 were natural cases, and the remainder, 109, of the description I have designated irregular—of these latter, 13 were Breech presentations, 29 Abortions, 8 twin cases, 1 triplet or 3 children at a birth, 8 Hæmorrhage, 2 instrumental, 9 retained Placenta, 5 Footlings, 2 Twin presentations, 1 arm presentation, 2 Placenta presentations, and 3 Convulsions; thus making in all, an aggregate of 1524 cases, of which 1328 were natural, and 196 affording those varieties so interesting and useful to the Student.' Gentlemen, you will perceive, upon referring to these two abstracts, that the latter, or that which relates to the external department, is the more numerous; and upon first consideration it might appear extraordinary, that where so much poverty prevailed, comforts like those to be met with in a well-regulated Hospital such as this is, would appear to be neglected, particularly in a case where the poor sick female stands so much in need of them, but this will be readily explained upon a little consideration; and great as a comfortable Asylum is, in these instances, to poverty in its most abject form—for such, it must be admitted, is the case in the neighbourhood that surrounds us—nevertheless, it is not sufficient to overcome that tie of nature which induces the mother to cling to her little home and family, till the last moment she conceives she can remain with them: the consequence is, that in a vast number of instances, females intending to become inmates here during that period, are overtaken in their illness, and thus it happens that their own homes unexpectedly were the places of their confinement. That what I have stated is the case, will at once appear evident from the following facts. Before this Hospital was established in its present form, that noble Institution on the North side of the City, 'The Rotunda Lying-in Hospital,' was the only one in Dublin—an establishment not more remarkable for the splendour of its structure, than the admirable manner in which it is conducted, and the valuable opportunity it offers to the diligent student for acquiring information in the art. The distance, however, between it and where we now are, is so great, that although the fact was strongly impressed, from repeated occurrences of what I shall presently mention, on the minds of those who in this

ighbourhood were the objects of its most
umane intention, still that feeling I have
st mentioned could not be overcome; and
extern assistance to females in this state
as not recognized by that hospital, those
ho wished to avail themselves of its aid
uld only do so by becoming inmates
erein. The consequenee was, that in
any instances indeed, females from the
berties were overtaken in their labour on
eir way to the Institution; and the wretch-
lanes and alleys of this impoverished
strict were the scenes of their confine-
ent, perhaps in the dead of night, and
ost inclement seasons of the year: for,
ntlemen, you will bear in mind that the
ter destitution of the inhabitants precluds
the possibility of a conveyance thither,
en on such an occasion. The scenes that
metimes then presented themselves were
ly of a most distressing description—a
etched fellow-creature, surrounded by
r small and equally wretched family, who
w to her on the occasion, giving birth to
r infant under such humiliating circum-
nces, at once struck the heart with com-
ssion in its most touching form, and
gret at the abject state of misery from
ich scenes like these could proceed.
hether such misery was the result of any
herent moral degradation on the part of
ose who were its victims, or indifference
m quarters professing an interest in their
lfare, we are not to say; but this must be
mitted by all who have witnessed such
nes, that they were not more the scourge
those exposed to them, than of disgrace
those whose duty it was to look to, and
once remedy them—and afforded just and
tional grounds for the conclusion as to
eir utter carelessness whether poverty and
etchedness of the description I have
entioned existed or not. Since this
tablishment, however, has been in opera-
n, such truly pitiable events have al-
gether ceased, and with them those un-
rtunate results then so prevalent, as death
the infants, and recoveries on the part of
e mother, with consequences so unhappy
to incapacitate her from the future ful-
ment of her maternal and domestic
ties. Indeed, to such an extent did
nes like these prevail, that a respectable
actitioner, who resided for a length of
me in this immediate part of Dublin, at
s death bequeathed an annual legacy for
e establishment of a Lying-in Hospital
this district, after having spent the best
rt of his life in representing the neces-
y of such an institution to Government,
t to which a deaf ear was turned as a
atter of course; and through the kind-
ss of Dr. Bell, one of our most anxious
pporters, and than whom no one is more
nversant with the miseries pregnant
males from the Liberties at that time were
bjected to, that legacy has been appointed
to, and is now drawn towards the support of this house—so that at present where delay has occurred, and leading to events I have endeavoured to describe, this Hospital intervenes, and a skilful Pupil is sent to take charge of, and conduct the female through her perilous situation.

"Your Committee confidently hope, that such scenes of Female wretchedness and misery—scenes for which language has no adequate description, or destitution a parallel—are not likely to be repeated; nevertheless, they must and will, it is feared, occur again, unless the benevolent extend their protection to those inheritors of woe, who truly 'bring forth in sorrow.' The numbers claiming relief, are daily increasing; while, unfortunately, the funds of the charity are decreasing in proportion; and it will be seen by referring to the monthly accounts of 'Receipts and expenditure' published lately, that while the latter was *astonishingly small* for the number of persons relieved, yet the money received, scarcely amounted to one half, leaving a balance deficient of several pounds.

"In every Capital throughout Europe, society seems to watch over Patients of this description, with the most fostering care and protection; and it is hoped this Asylum, the only one of the kind in Dublin, in its poorest and most thickly inhabited division, will not be allowed, through apathy or neglect, to close its doors upon the poverty-stricken and unfortunate Female, in her hour of greatest need.

"The mode hitherto pursued for the acquisition of Funds, for the support of the Coombe Hospital, was by an Annual Ball, and Subscriptions. It is a matter of deep regret, that the means thus aequired would have been totally inadequate, but for liberal Donations occasionally supplied by individuals: it is hoped, however, that when the Public are apprized of the mass of human suffering, reeeiving hourly and daily alleviation, they will not suffer so valuable a resource to the wretched Poor to depend on precarious or limited support; the luxury of doing good can be obtained by Subseriptions of Ten Shillings and One Guinea. The Subscribers of those sums have the privilege of recommending Patients for admission, not only to the Lying-in Department, but to the Daily Dispensary; while Subscribers of Two Guineas become Annual Governors, and Ten Guineas Governors for Life. A Registry is kept at the Hospital, of the persons relieved; and if any attestation were necessary to prove the skill and excellence of the treatment administered, it would be found in the fact, that this Hospital has had a patronage from the Profession as a School of Midwifery, almost without a parallel.

"Your Committee have the gratification of now stating that, even with their limited means, they have been enabled to add an

Ophthalmic department to the Institution, by which its usefulness is greatly increased, and the dangers and sufferings to which the Poor were subjected, from this dreadful and hitherto neglected class of diseases, have been considerably averted and relieved.

"When we reflect on the nature of the Diseases to which the Eye is liable, and consider that to the Poor the loss of vision would be almost synonymous with the loss of life, by depriving them of the means whereby 'they live,' the fact just stated offers another convincing proof of the great benefits this admirable Institution can bestow upon the suffering and unfortunate of our fellow-creatures, if properly supported by a Benevolent Public."

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A Letter to the Reform Corporations, on the Necessity of Electing Medical Coroners. By George Rogerson, Surgeon, of Liverpool. 8vo. pp. 18. London: Longman & Co. 1836.

The author of this letter is favourably known to the profession by his excellent treatise on inflammation, which was awarded the prize of the Royal College of Surgeons, and which we were the first to notice. The present letter will be read with interest by all friends of justice. The author explains the law relating to coroners, and then proceeds as follows:—

"The principal, and all the essentially important questions of fact, relate to death, which can only be decided, with a certainty of justice, from knowledge derived by an inspection of the body, and from evidence voluntarily adduced, and judiciously extracted.

"The inspection of the body was regarded, by our ancient legislators, of such paramount importance, that the corpse was constantly exposed to view, and even in our day must be seen, to legalize the proceedings of the Court. What, then, is the information gained by this kind of inspection, which the wisdom of our ancestors, and the experience of ages, have found of such primary consequence, and manifest utility, in obtaining the ends of justice, and so absolutely necessary in promoting the Coroner's inquiry, even at the commencement? A view of the external surface of the body merely will lead a practised eye to trace the hand of violence, or suspect some 'foul deed.' A more minute examination will explain, if the death has been caused by the infliction of a wound, blow, or other injuries, either from number, extent, or on a part of the body essential to life. The fatal result will be equally exposed, if it has arisen from the natural operations of disease, or if it has been hastened by any rude act. This inquiry, primary, and important as it really is, and as our laws have wisely made it, can be executed only by those who *intimately understand the laws of the animal economy*, and are profoundly acquainted with the numerous organs and functions of the human constitution—with the different states in which they appear during health and disease, during life and death. Hitherto the inquiry is strictly *medical*, and the requisite information is afforded by anatomy, pathology, and surgery. By negligence, self-design, or guilt, destruction of life is frequently effected by drugs or poisons; of which the Coroner's inquiry can only be efficiently and justly prosecuted by discovering *the nature and properties of destructive substances, and their effects on living bodies.* This part of the inquiry is also strictly *medical*, and can only be attained by the aid of materia medica, chemistry, and toxocology. The various branches of a difficult, learned, and deeply interesting science, requiring years of labour and study fully to comprehend, are embraced in the elucidation of these questions, and are *absolutely necessary to forward the ends of justice.*"

Having explained the first principles that govern the Coroner's court, Mr. Rogerson proceeds to shew that legal gentlemen are not so competent to preside over it as medical—an opinion we have always declared.

"Is a lawyer, whose business cramps his mind, in the study and perversion of precedents, acts of Parliament, judges' versions of them, and in mechanically copying forms of law, best qualified to preside in such a Court? Decidedly not—will be the immediate answer. His professional learning and habits of life never lead him to acquire the extensive knowledge of *medical science* which is requisite for the execution of these duties of the Coroner's Court. So defective do Attorney-Coroners find themselves on this point, that they are in the habit of carrying with them to inquests a small manuscript copy, neatly and closely written, containing a list of the most common poisons, the principal symptoms following their administration, and a short description of dangerous wounds, and of the appearances from drowning, hanging, &c. How miserably defective must that inquiry be, when the highest authority and chief director of a Court is obliged to consult so imperfect a document, before he can proceed with, and continue an examination, which may put the life of a fellow being in jeopardy, and may perchance destroy, what may be dearer to him—his *reputation*. His medical ignorance necessarily prevents him from safely, justly, and properly conducting this inquiry.

"Nor is a gentleman unconnected with the liberal professions, on account of his

erary and scientific education and general formation, the best adapted for this office. e science of medicine, the various branches which must be known to institute an cient examination, has been cultivated d pursued exclusively by a distinct class society, who alone are able to investigate d discover the *causes of death*, and to duly timate all evidence bearing on them. The merous and respectable body of medical actitioners qualified by their education, actice, habits, and thoughts, which are liged to be constantly directed towards edical knowledge, are comprised in this ss. They, alone, are able to carry into fect the intentions of the law, as Coroners the *presiding and recording inquirers;* to ke every advantage of this "view of the dy," to discover suspicious and unnatural ppearances and the necessity of obtaining e aid of a scientific witness to prosecute e inquiry, and to know that he performs s duty ably and properly for the benefit of e jurors—the *deciding inquirers.*"

The objections to medical Coroners are ext answered satisfactorily; and some very rong evidence adduced to prove the adntages the public would derive if they resided over the courts under notice.

"An objection, deceptive without the nerit of plausibility, may be offered against he absolute necessity of appointing Medical Coroners. 'These inquiries, important and ecessary as they must be admitted, can be btained from a medical witness.' A Coroner s present at every inquest; a medical witness sees very few of them, and at the majority of these few, the assistance of a medical practitioner is, according to the present practice, required only on account of some glaring suspicion, or strong communication, which stupidity itself could not overlook. Are the great majority of deaths on which inquests are taken, and the cause of which are unenlightened by medical witnesses, invariably unattended with suspicious circumstances? A great number of sudden deaths, requiring inquests, are suspicious, and a medical Coroner, who, by the nature of his profession, is best acquainted with the *causes* and *appearances of death is enabled at once to decide on the truth or falsity of these suspicions, and on the necessity of instituting a rigid examination by a medical witness.* A Coroner, with a smattering of knowledge, or with a total ignorance of medical science, will most certainly commit errors. One fact is said to be worth a thousand reasons, and among the number supporting the truth of this last position, I will offer the following, related by the late Mr. Hunt, which occurred during his confinement in Ilchester gaol. 'A prisoner died at eleven o'clock in the morning, and on his body an inquest was held by a non-medical Coroner, under whose direction a verdict was returned of accidental death. It was afterwards proved on oath, before the Commissioners of Inquiry, that the unfortunate man was killed by a blow inflicted by one of the turnkeys, who had chained him by the neck to the wall for rioting and drunkenness, and was irritated by his abusive language.' An error so egregious as this could not occur with a *medical* Coroner, for the view of the body required by our laws would soon inform him of the necessity of directing this inquiry to be prosecuted by anatomical examination and a further verbal investigation. Mr. Hunt, in a speech which he delivered at a meeting of Middlesex freeholders, for the election of a Coroner, said, 'he had been impressed with the necessity of extensive medical education in a Coroner, and had had abundant opportunities of seeing and lamenting the want of it. And that, the election of a Medical Coroner for the county of Somerset was the *first step towards an investigation of the abuses in Ilchester gaol.*'

"If a medical practitioner must appear in the character of a witness only, the jury will be always deprived of the advantage of receiving a clear and valid statement on the medical topics of the inquiry, and the advice of the Coroner on any doubt arising in their minds on questions connected with death, for *it is preposterous to expect that a Coroner can give a true opinion, or state a correct explanation on subjects of which he is ignorant.*

"A most material part of the evidence which relates to death and its cause, I have proved to be exclusively medical, to be appreciated only by practitioners in medicine, and explained to a jury, clearly and justly, by a medical coroner. The remaining part must be derived from oral testimony, a term which I here use in contradistinction to that kind of evidence gained by the coroner and jury themselves, from the view and inspection of the body and other attending circumstances, or, if I may so denominate it, the body evidence. The oral testimony will assist and confirm the body evidence, and will discover the offending cause, the guilt and its degree, and the culpable agent or instrument.

"In the first of these divisions the greater and most interesting portion of the oral evidence relates, if the corpse was accidentally discovered, to the state in which the body was found, the appearances, external and internal, and other attending circumstances; and to the symptoms, to the wound, blow, &c. if an injury; to the substances administered, if poison; and the conduct of those who are present. The striking character of this evidence is medical in whatever point of view it is regarded; whether it originate from the mere observers and attendants, or from persons of a scientific

character. In order then to pursue this inquiry with the greatest prospect of arriving at a correct conclusion, the coroner should possess sufficient knowledge to analyze the whole evidence from medical and unprofessional witnesses; to point out its validity or the degree of credit due to it, and its discrepancies; to seize and connect all the different strong points of the testimony; and to question on matters which very frequently demand a profound acquaintance with anatomy, surgery, chemistry, and with the nature and effects of deleterious substances. This duty of an inquest can only be executed by a medical coroner; otherwise justice will be frequently frustrated."

Our author adduces two cases in which the want of medical knowledge on the part of coroners was followed by injustice and injury. In one case a woman's life was sacrificed; in the other a surgeon was sent to prison, like the lowest malefactor, though innocent.

"General truths acquire additional force by the illustration of example; and the inability of non-medical coroners to estimate the validity of evidence, and conduct an examination relating to scientific questions on death, is shown by the 'case of the unfortunate Eliza Jennings. It was stated that the knife, which was a steel one, and which she had used to cut a pudding, was made black by that act, and that, therefore, the pudding contained a combination of arsenic. This, too, was asserted by a medical witness, and was the strongest evidence against her; but this combination of arsenic could not blacken steel. The Coroner knew not this chemical fact, and could not, therefore, discover the necessity of other and better evidence on this point, nor explain to the jury the value at which it should be estimated. The non-medical coroner knew not the error or truth of the opinion, on the blackening of steel by this preparation of arsenic.'

"Examples of this kind of abuse of justice from ignorance of the degree of the validity of scientific evidence, of the kind necessary for a perfect investigation, and of the method of conducting it, are so numerous and common, that they are, with no great difficulty, discovered near every one's door. 'In Liverpool, Mrs. —— died in child-bed—after an illness of eight days. Instruments had been used to effect delivery. An inquest was held on the body, and a verdict of manslaughter was recorded against a young gentleman, (a medical assistant), who was publicly sent to the county gaol at Lancaster, pinioned to a common felon. The evidence implicating this young gentleman consisted in statements, showing that he was present from an early period of the labour, and when instruments were used by others, that he interfered too much, which evidence was only hearsay, related to another by the suffering lady herself; and that he was seen in an ante-room with instruments in his hand, when he replied in the affirmative to one asking, if he was going to use them.'

"With this evidence, defective, presumptuous, unsatisfactory, and of secondary consequence, were the Coroner and his legal officer content, and, in consequence of their incompetency from want of medical knowledge, they could neither assist the jury nor promote the investigation, by ascertaining the nature and extent of the 'interference' and the part he interfered with, which were the head and front of his offence, and what was the consequence of that interference, and what use he made of the instruments. Highly important and absolutely necessary as these points of the investigation were, the Coroner, through ignorance of medical science, could neither question nor appreciate, though witnesses were present, from whom the inquiry might have been made. Upon this evidence, defective, and miserably managed, was this young gentleman singled out as the only victim, and he appears to have been made the principal in the first degree of guilt, which was more strange and surprising than all other errors. He was subsequently discharged on the surrender of his bail without redress.

"These instances will suffice to convince on the least reflection, that many evils arise from the want of medical knowledge by the Coroner; and that in such a court, justice is administered as much by blind chance, as by wisdom and certainty."

Every member of our profession will perceive the correctness of the following observations. Mr. Rogerson is evidently possessed of a powerful and well-regulated mind, and of great knowledge of the world.

"The nature and degree of guilt, being, with some exceptions, questions of fact for the jury, embrace a complicated range of inquiry, and arise in a Coroner's inquest from the evidence produced. I will allude to as many of those questions as the limits of a letter will allow me.

"Murder is defined to be, 'when a person of sound memory and discretion unlawfully kills any reasonable creature in being, and under the king's peace by any means with *malice aforethought*, either express or implied,* and it is a general rule that the law infers malice from the very *fact of killing*†.

"Examinations, in a great measure relating to the operations of the mind, whether in a state of disease or of health, occupy considerably the attention and practice of

* 3 Inst. 47. † Fost. 255.

edical men, and their knowledge will herefore admirably qualify them to make he inquiry, and value any evidence, if the erson killing be of '*sound memory and discretion*,' or if the act 'be *the dictate of a icked and depraved heart*.'* The great disinction between this and other species of omicide is the 'malice aforethought.' The etermination of this point from the evience, and a clear explanation for the jury, ill rarely, from the facts adduced, offer much difficulty to any Coroner of clear eason and common sense. A medical practitioner, however, must always, in these ases, be an excellent judge, since his practice gives tact and experience in valuing he acts, words, and manner of patients, with reference to the mind under every tate, direction, and degree of excitement.

"If there be *no* 'malice aforethought,' what class of society, from education and habits of life, are likely to furnish the best judge to conduct an inquiry so as to ascertain if the offence be manslaughter, excusable homicide, or justifiable homicide.

"In manslaughter, the offence arises from death caused by a sudden transport of passion; by the commission of some unlawful act; or some lawful act, criminally or improperly performed: thus constituting killing upon provocation; in mutual combat; by correction; in defence of property; without intention; by and of officers and others. The inquiry can be made, and the evidence duly appreciated, properly extracted, and fairly stated, in the majority of cases, without medical or legal information. In the minority, some degree of legal knowledge is required to be sometimes explained for the guidance of the jury: as, for example, killing by officers. The manner, however, in which this has been conducted by Attorney-Coroners reflects little credit; for the blood shed at Peterloo cries not in favour of the Oldham inquest. The legal part, confined and narrow, is taught to the medical profession in a system of medical jurisprudence; and the legal distinctions are, so far as a coroner's inquiry is concerned, in general, only nice applications of general principles, which oftentimes command our admiration at the clearness, justness, and acuteness of the understanding of the judge who observed them. The legal inquiries of the Coroner's Court are not obscured with difficulties of law, which are, as they ought to be, few and simple. These remarks are applicable to all kinds of homicide, and medical ability is not unusually required to discover the real or unreal mental legality (if I may so express it) of the offender.

"The last division, which I shall concisely examine, refers to the culpable agent or instrument. Besides discovering the offenders, it involves the consideration of their degree of guilt, as principal, aider or abettor, and accessory before the fact; and of his legal capacity to commit crime. The first portion embraces mostly matters of fact and some slight legal information; and the second, to ascertain and judge if the culpable agent be an infant in age as much in mind as body, be lunatic, or insane naturally, accidentally, or *affectedly*, demands a knowledge of medicine. The subject of deodands and forfeiture is connected with the offending agent; but its discussion is not of sufficient consequence to occupy the pages of a letter.

"I have briefly and impartially pointed out the principal knowledge necessary for efficiently conducting the Court of the Coroner, which is in its nature essentially medical. The requisite legal information is soon gained by any rational individual, for the examinations seek into MATTERS OF FACT RATHER THAN OF LAW. The Court is not one for the decision and examination of points of law, and for the awards of punishment, but of preliminary investigation and inquiry on *violent, sudden, and unnatural deaths, and deaths in prisons, and their causes*. The requisite medical information, then, must be profound, including a wide range of science, Anatomy, Pathology, Surgery, and the effects of Drugs and Poisons; and can only be learnt by years of study and practice.

The facts and evidence elicited during the investigation, are, in the first place, wholly and decidedly medical, and in the second which refers to the kind and degree of offence and offender, partially medical, slightly legal, and partially general; meaning thereby, conduct, character, society, and other circumstances. Under every consideration, the evidence given in this Court must therefore be appreciated, conducted, elucidated by additional facts, the want of which must be best ascertained, and, finally, stated to the jury, with the greatest effect, knowledge, and justice, by a Coroner who is a medical practitioner.

"I have briefly mentioned these duties and knowledge required from a Coroner; for the medical profession, till within these few years, have not publicly proclaimed their peculiar fitness for prosecuting the inquiries of the court, and because I firmly believe that a Reform Council will gladly seize the best means of insuring justice; will never sacrifice her sacred cause at the shrine of party, faction, and patronage; nor throw personal liberty and reputation at the feet of ignorance clothed with legal power."

We have noticed Mr. Rogerson's views in detail, perhaps because they are our own. We have been long convinced of the superiority of medical over legal coroners; and we hope the time is near at hand when the

* 4 Com. 198.

services and value of our brethren will be duly estimated by the public and the legislature. Our profession has, after ages, three friends in parliament — Mr. Warburton, Mr. Hume, and Mr. Wakley; and their exertions must prove most beneficial to the public, as well as to the faculty of medicine.

Case of Loss of the Uterus, soon after Delivery. With Remarks on the Propriety of Removing that Organ in Cases of Inversion or Scirrhus. By John Charles Cooke, M. R. C. S., and Licentiate of the Society of Apothecaries.

We insert the following very remarkable case from a pamphlet by the narrator, which is not likely to be perused by many; because we think it worthy of the notice of our readers.—Ed.

At about 4 o'clock on the morning of Friday, May 22, 1835, Mrs. Aston, midwife, of this city (Coventry), was requested to attend the wife of —— Cunningham, in her labour. Mrs. A. went immediately, and upon her arrival, found the woman, who had already been in labour 48 hours, upon her knees, and insisting upon being delivered in that position, as being the custom of her country (Ireland).

With some difficulty she induced her to lie upon the bed, in order by an examination of the parts, to ascertain how far the labour had advanced. Upon this being done, the os tincæ was found dilated to about the size of half-a-crown; the child's head presenting as usual. Every thing went on well, and the woman was delivered at seven o'clock the same evening of a living child. The placenta followed whole in a quarter of an hour, being expelled by a pain.

No hæmorrhage whatever ensued at the time, although a considerable quantity of blood was lost during the night. The after pains were trifling, and when Mrs. A. visited her the next morning, she appeared in a very satisfactory state. So well, indeed, did she feel, that notwithstanding the strict injunctions of the midwife to the contrary, she partook plentifully of animal food, immediately after her departure.

About four o'clock on Sunday morning, May 24th, the attendance of Mrs. A. was hastily requested, in consequence, as the messenger stated, of the appearance of another child. Mrs. A. upon arriving at the house, gathered the following particulars;—that the woman had risen during the night, and had gone into an adjoining room to make water; that, whilst there, she had by her screams alarmed her husband, who called in some of the neighbours, and upon entering the apartment, they found the woman seated on a stool, before the fire, with a vessel of warm water in front of her, and a large substance, which they compared to a child's head and neck, lying between her thighs, supported by her hands. They then sent for the midwife, believing it to be a case of twins, and being greatly alarmed at the quantity of blood she had lost, the hæmorrhage having been profuse.

The midwife, upon her arrival, found the woman lying upon the bed, pale from loss of blood, and in considerable pain. The bed, sheets, blankets, &c., were saturated with blood, which had even run on to the floor. Upon proceeding to ascertain what had caused all this, she discovered a hard substance, lying on the bed, loosely connected to the vagina by a shred of membrane only. This substance she immediately recognized as the uterus, and lifting it gently, removed it without difficulty or effort, and placed it in a wooden bowl.

The hæmorrhage then ceased, and, considering her attendance no longer necessary, she returned home, carrying with her the contents of the bowl. The whole time she had remained with the woman was about half an hour. At nine o'clock the same morning she brought the substance to my father's house, giving him, at the same time, the foregoing history of the case. Upon examining the mass he discovered, to his astonishment, that it was an uterus inverted. At 11 o'clock he visited the woman, and found her completely exhausted from the hæmorrhage (which by this time had ceased); she was extremely restless and agitated, constantly throwing her arms about: pulse scarcely perceptible. Upon inquiry he found she had passed some urine shortly after loss of the uterus, as also between 9 and 10 the following morning (Saturday). He was also informed that her bowels had not been relieved for a period of at least nine days before delivery, except a mass of hardened fœcal matter which was discharged with the last pain in the labour.

The woman did not much complain of any sensation like bearing down, nor of any substance lying in the vagina. She did not appear to suffer much from pain: neither was there much distension of the abdomen, nor was there then or at any time during the progress of the case anything amounting to more than a slight degree of tenderness, which, however, was hardly noticed except upon pressure. It was apparent in the left lumbar region only. It is worthy of remark that the only part of the uterus and its appendages not found in the wooden bowl was the left ovary. I merely mention this circumstance as a coincidence, without drawing from it the conclusion that the greater degree of tenderness observed on the left side, was referrible to the continuance of the left ovarium in its situation.

Upon inspecting the uterus, &c., after having simply removed it from the vessel containing it, and placing it on a napkin, it presented the appearance of a heavy, hollow, but firm pyriform body.

In size it nearly equalled an ordinary child's head at term. No laceration of any kind was visible except a slight rent in the posterior lip of the os uteri. The attachment of the placenta was distinctly marked, being of a deeper brown red than the remainder of the mass: its site was also rendered further evident, by a quantity of flocculent matter which still adhered to the walls of the uterine cavity. It was inserted over, and concealed the opening of the left Fallopian tube. This orifice was easily discovered by detaching with the nail a small portion of the loose flocculent substance already mentioned.

The vessels were large and tortuous, and their patent state sufficiently accounted for the great hæmorrhage which had occurred, both after the removal of the uterus and during the night succeeding her delivery.

Upon making a section along its anterior aspect, the broad ligaments, with both Fallopian tubes, and the right ovary were discovered. The fimbriated extremities of the tubes were particularly clear and distinct; the left ovary appeared to have been detached, and to have remained in situ.

My father considering that there was no protrusion of the pelvic or abdominal viscera, and that no urgent symptoms were present to call for active treatment, judged it prudent not to incur the risk of inducing fresh hæmorrhage by instituting any examination per vaginam. In addition to this consideration he conceived that by causing any irritation, the chance of peritoneal inflammation supervening would be materially enhanced, and that any salutary union of the sides of the vagina which might be hoped for would be retarded, and, consequently, the risk of an ulterior prolapsus of the viscera be greatly augmented.

In accordance with these views, he contented himself with enjoining perfect quietude and absolute restriction to the horizontal position; abstaining from exhibiting any active medicine. The patient was ordered a light farinaceous diet to be given in small quantities, and at intervals.

He visited her again at half-past two, when he found her considerably revived: the pulse being fuller and more perceptible, and beating 140 in a minute. Her mind was placid and composed, having, apparently, no apprehension of danger. In the evening she appeared to be in the same state, with the exception of the pulse having acquired more fullness. No hæmorrhage, and little discharge had taken place.

May 25th. Monday morning. The patient had risen from her bed during the night, had helped herself to the chamber utensil, and had passed her urine freely. She had had some sleep, and appeared in all respects to be as well as on the previous evening. The whole of the day she continued in the same state, no increase of pain or tenderness in the abdomen. Towards evening she passed several small scybalæ.

May 26th. Slept at intervals during the night. In the forenoon of this day, she had a copious evacuation from the bowels, and passed her urine without difficulty. In the course of the day, the tenderness of the side was augmented, and some degree of flushing was perceived in her countenance. The skin hot and dry. This was probably produced by her having been permitted to take two or three ounces of weak beer, at her own earnest and repeated request. It was, of course, ordered to be discontinued; and a saline, diaphoretic medicine prescribed.

May 27. Wednesday. The skin during the night had become moist, and febrile symptoms had abated. Early this morning she had an alvine evacuation, and her bowels were again relieved in the afternoon. Pulse still the same; tongue clean and moist.

Towards the evening of this day diarrhœa supervened, which continued for three or four days, producing some degree of debility; for this mistura cretæ was prescribed, which had the desired effect of checking the profuse discharge from the bowels, and was, together with the saline diaphoretic mixture already mentioned, the whole of the medicine exhibited during the progress of this remarkable case.

From this time she gradually regained her health and strength, her appetite became good, and she expressed a wish to partake of animal food: this was at first refused, unless in the form of broth, which she took frequently; occasionally eating a boiled egg.

Previous to her confinement, milk was secreted in considerable quantity, but immediately after the loss of the uterus this secretion, together with that of the lochia, was arrested. Notwithstanding this, and in spite of the remonstrances which were made to her on the subject, she persisted in applying the child to the breast, which induced considerable pain and hardness of the right mamma, attended with a good deal of febrile excitement. These symptoms subsided upon the exciting cause being removed. When her health had been in some degree re-established, she again gave the child the breast, and persevered in doing so during several weeks, until finding that she had no milk she finally desisted.

It may not be deemed irrelevant to state, that during the febrile attack, although accompanied by considerable thirst, the tongue still remained clean and moist, at no time exhibiting any approach to a furred state.

At the present time she is in tolerable, although not robust health; her complexion is pale and sallow, and she complains of a good deal of debility. The sallow tint of the countenance, however, is habitual with her, and existed before her confinement; and the debility still remaining is not to such an amount as to preclude her from following her usual occupation.

The child was for a long time in good health, and looked ruddy and well. About a month since it was attacked by diarrhœa, which in the course of a day or two carried it off.

The principal physiological phenomena which present themselves upon reviewing the history of this case are, the sudden and immediate suppression of the secretion of milk and the absence of any flow of the lochia. So trifling, indeed, was the quantity of the latter, that the napkins were but slightly soiled, the hæmorrhage too was completely arrested, as she did not lose a drop of blood after the morning of the 24th (Sunday). There is this additional peculiarity connected with the former fact, viz. that the milk had already appeared in considerable quantity before the loss of the uterus, but was entirely and permanently suppressed within two days after the separation of that organ. It was with a view of restoring the supply of this fluid that the woman persisted in applying the child to the breast, and impressed with the same idea, continued to do so until within a short period of the child's death, when finding her efforts vain, and that not a drop ever exuded, she finally desisted.

She was repeatedly remonstrated with upon the subject, as it was feared that the frequent and prolonged state of excitement into which the gland was thrown, by the efforts of the child at suction, would tend to induce some morbid development in its structure, which hereafter might seriously inconvenience her.

The absence of all peritoneal inflammation, also, is a circumstance particularly worthy of remark, no means being taken to prevent this coming on, and none actually supervening.

Might it not be a question whether the great quantity of blood lost at the time the uterus was separated from its attachments would not, in some measure, serve to explain this singular fact?* With regard to the degree of violence which must have been used, in order to effect so complete and entire a removal of an organ so voluminous as the uterus, at a period of thirty-six hours after delivery, it is almost impossible to conceive it to have been offered by the woman herself, and yet such, there is every reason to believe, was the fact, if, indeed, we find ourselves compelled to suppose that violence alone can suffice to account for such an event.

The midwife most positively asserts that she did no more than remove the tumour which she found lying between the thighs of the woman, attached to the vagina by a small piece of membrane only. In this statement she is strongly corroborated by the neighbour who first saw the woman after being called up by the husband, on the morning of Sunday; this woman distinctly states that she saw a large lump, like a child's head and neck, lying between her thighs and supported in her hands. She also bears out the midwife as to the fact that no effort was required to remove it, from its being so loosely connected with the vagina.

It is equally difficult to account for the inversion of the uterus, or to state when it occurred, as, from the appearance it presented on examination, it must have happened spontaneously, the supposition of force having been employed not being tenable, no traces of any violence existing, and no portion of the placenta or other body remaining, by which sufficient traction could have been made. Previous to its descent on the morning of Sunday, none of the symptoms ordinarily attendant on this accident had manifested themselves, and nothing which could have led to any suspicion of such event, had happened.

The fact of none of the viscera following the uterus and becoming prolapsed, and the total absence of any thing like bearing down, is equally inexplicable, unless, indeed, we can adopt the idea that the rectum, in consequence of being distended with fœcal matter, had fallen forward, towards the pubes, and thus, by closing the sides of the vagina, had afforded a mechanical impediment to the descent of any portion of the intestines. Such compression, however, if existing at all, must have been very small, as the woman never experienced the slightest difficulty in the act of micturition. In fact, on the morning of Saturday, she passed a considerable quantity of urine in the presence of the midwife; I have not been able to ascertain whether she did so on the night of Friday.

This circumstance will, perhaps, bring us nearer the epoch of the inversion of the uterus, as it is difficult to suppose a body of such magnitude to have been in the vagina without obstructing the flow of urine.

Owing to her constant and obstinate refusal to permit any examination per vaginam to be made, after her recovery, I am not able to give any description of the state of the parts at the present moment

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* I am aware that a contrary opinion is maintained by many of the most eminent obstetrical writers, who consider hæmorrhage as rendering the patient peculiarly obnoxious to peritonitis.

he most probable supposition is that the agina forms a cul-de-sac in consequence of he adhesion of its opposing surfaces. In his manner we may easily account for the isecra remaining in situ after her return to er ordinary active habits. It will be recol-ected that considerations of this nature nduced my father to refrain from instituting n examination when first called in. This s further strengthened by the fact, that exual intercourse has repeatedly been had ith her husband, no mechanical obstruction aisting.

In connection with the loss of one ovary, t is interesting to be able to state, that, lthough no impediment to coitus exists, yet he usual feelings and desires are entirely anting. This might have been anticipated ad both ovaria been removed, but from the act of one of these bodies still remaining in itu, some degree of doubt might have been ntertained.

Of course, after the loss of the secreting rgan, the menstrual discharge has never re-ppeared; even the small quantity occasion-lly furnished by the vagina has not been bserved.

The practical deductions from the history f this case are highly important, as they emonstrate the possibility of removing an rgan so voluminous, and so essential to the nimal economy, as the uterus, together with he ovaries, Fallopian tubes, and ligaments, ot only without fatal consequences, but ith only a slight impairment of the health.

In this view of the case we find the ropriety of the operation proposed for the emoval, entire, or partial, of the uterus, in ases of inversion, strongly confirmed.

It is well known that many distinguished ccoucheurs and surgeons have zealously ad-ocated the extirpation of this organ, when t has become affected with cancer, or when, fter having been inverted, it cannot be re-luced, and threatens gangrene. The profes-ion are also familiar with the fact that these deas have actually been carried into execu-ion in several instances. As the propriety f this operation has been much canvassed, nd as it has seldom been performed in this ountry, a few observations on the prospect f success it holds out may not be misplaced.

Struck by the invariable fatality which ac-ompanies cancer when attacking the uterus, nd by the complete failure of all therapeu-ical means in arresting its progress, various surgeons had proposed extirpating the dis-eased portion, as being the only means of rescuing the patient from her otherwise in-evitable fate.

This suggestion is not altogether of mo-dern date, as we find Themison strongly in-sisting upon it, and asserting that he himself had removed the uterus with success. There is every reason, however, to doubt the truth of his statement, as well as those of other authors, who do not hesitate to accumulate instances of what, from its very nature, must have been exceedingly rare. I do not assert that they wilfully perverted facts, but that the cases in which they supposed they had extirpated the uterus, were in fact instances of large polypi; this has been proved to be the case in more modern times. Almost all the older authors content themselves with simply asserting that they had removed the uterus; many merely state that others had done it, and but very few enter into any de-tails. I should feel disposed to consider the case of Ambrose Paré, noticed below, as the first case of inverted uterus being ex-tirpated, to which any degree of authenticity is attached.

MM. Recamier and Dupuytren recom-mended the cancerous portion to be destroyed by means of the potassa fusa. This practice was soon abandoned, as it was found to be altogether inadequate to the removal of the disease.

It would appear that the proposition of amputating the cervix uteri, is of much more recent date than that of extirpating the uterus itself. It was first practised by Osi-ander, of Gottingen. Dupuytren was the first to perform it in France. It is to M. Lisfranc, however, that the merit of having revived this operation, and of having incon-testably proved its applicability peculiarly belongs. In fact, it is almost exclusively in consequence of the numerous instances of success which he has published, and the mo-difications he has introduced in the modus operandi, that the operation has been able to maintain its ground against the great diffi-culties by which it is accompanied.

It has now been so frequently crowned with success as deservedly to have obtained a place amongst the standard operations of surgery. To ensure this desirable termina-tion, the disease must be strictly confined to the cervix, in order that no part of the can-cerous structure may be left behind. It is obvious that the chances of a relapse will be materially increased, if too long a time be suffered to elapse after we have satisfactorily ascertained the existence of carcinoma, before operating. When, however, we are satisfied that the disease is no longer confined to the neck, and that the body of the uterus is im-plicated, it has been advised to have recourse to the daring step of removing the uterus altogether.

This measure has also been recommended in cases of inversion of the uterus attended with an impossibility of returning it, and with threatened gangrene. It has been done successfully in the latter class of cases, by Newnham, Hunter, Clarke, Windsor, Gooch, Baxter, and Chevalier, in this country, and by Bartholin, Blasius, Goulard, &c. on the continent. The operation for removing the uterus when inverted, and out of the pelvis,

however bold, falls infinitely short of that in which it is proposed to complete the prolapsus of the uterus, by means of steady and powerful traction, and then to amputate it close to its attachment of the vagina. And this, in its turn, yields in hardihood to those cases in which the operator has removed the uterus, when no relaxation of the ligaments was present, and when, to carry his purpose into execution, he has been obliged either to open the abdomen, with Gutberlat, or to incur the risk of wounding the bladder and rectum, if he prefer the method of Sauter.

This last operation, viz. of extirpating the uterus without the ligaments being relaxed, and without dragging it outside the vagina, has now been practised twenty times. One patient has been permanently cured, four had relapses, and fourteen died. It is clear from this statistical statement, that this operation has not been supported by a sufficient number of successful cases, to entitle it to rank as one of those to which we may have recourse with a fair and well grounded hope of saving our patient. With respect to the propriety of removing the uterus in those instances in which it is inverted, and we cannot succeed in our endeavours to reduce it, and when, from the degree of constriction it suffers, we have reason to dread the supervention of gangrene, I think no doubt can exist, and that the only part of the subject which admits of dispute, is the comparative advantages of the ligature and knife.

So many instances are now on record, in which this operation has been attended with complete success, as to warrant us attempting to relieve our patient by it, in those deplorable cases where the uterus has been prolapsed perhaps for years, and in which the patient must otherwise sink. Many, perhaps the majority, of cases in which the operators believed they had removed the uterus, were undoubtedly instances of polypus. Others, however, were afterwards verified by post-mortem examinations. Vicussens had a case, in which a difference of opinion existed as to the nature of the tumour, some maintaining it to be a uterine polypus, others believing it to be the uterus itself:—all, however, agreeing as to the propriety of removing it. When this had been done, it was discovered to be the uterus. The woman recovered and lived for some years afterwards. Wrisberg relates a case in which a midwife had inverted the uterus by pulling at the umbilical cord, and then, frightened at what might be the consequence of her ignorance and brutality, she cut off the tumour with a knife, close to the vulva. This patient recovered, after a tedious and dangerous illness of some months duration.

Rousset has described a case in which he operated: this woman did well. The uterus had been inverted six years. Ambrose Paré, Faivre, Deleuyre, &c. had each a case of this description. Petit, of Lyons, saw an instance in which the uterus was included in a ligature, being mistaken for a polypus. The woman had an inversion for three years, and perfectly recovered. M. Laumonier tied a tumour which he considered to be an inverted uterus; the Academy of Surgery, to which the preparation was sent, considered it to be a polypus. The woman had a relapse and died; upon opening the body it was found that only a small portion of the uterus had been removed. Desault, Baudelocque, Hoin, Midaw, and others, have mistaken cases of polypus for inverted uterus, and treated them as such.

We must not, however, imagine that this operation is without danger, as cases are not wanting of the patients' death being hastened, if not directly induced, by this operation. Thus, in one of the cases in which Blasius tied the uterus, the woman died on the third day. In one also of those in which Goulard operated, his patient died on the eighteenth day. Dr. Symonds applied the ligature—the uterus came away on the fifteenth day, but the patient died on the twenty-first: on inspection pus was found in the abdomen. In the Receuil des Actes de la Societié de Santé de Lyon, there is a case recorded, in which the operator supposed he had to deal with a polypus, and tied it. The woman died in a few days, although the mistake was discovered, and the ligature immediately withdrawn.

With respect to the removal of the uterus when not prolapsed or inverted, and when its structure is attacked with cancer, although frequently advised by the older authors, and said to have been carried into execution by some of them, there is every reason to believe that the first case to which no suspision can be attached is that of Paletta in 1812; the credit of having been the first to carry it into execution intentionally, does not, however, belong to him, as, when operating, he supposed that he was removing the neck alone, and it was not until after examining it that he discovered his error. This woman died. Since 1812 it has been excised twenty times: of these Dr. Blundell has operated 4 times; all the women died from the effects of the operation, with the exception of one, who lived for nearly a year, and was then carried off by a relapse.

Professor Lizars of Edinburgh operated once, with no better success. The other cases are those removed by Recamier, 1 by Sauter, 2 by Liebold, 1 by Hoelscher, 2 by Langenbeck, and others by Lisfranc, Dupuytren, &c. By far the larger number of these women died from peritonitis, or from hæmorrhage. This has also been the case with those who have sunk under the removal of the uterus when inverted.

When speaking of the latter operation,

have said that a difference of opinion exists amongst surgeons, as to the relative merits of the knife and ligature.

The principal advantages of the ligature are, its facility of application, and the security it affords against hæmorrhage, to which the use of the knife exposes us. It possesses, however, the serious inconvenience of producing great pain; the ureters, bladder, or intestines, may also be included in its folds. So acute has been the pain caused by it in some instances, as to compel the surgeon to remove it and have recourse to the knife. The risk of including the intestines, &c. is not imaginary, as it has actually happened in several instances.

The knife is more prompt, and infinitely less painful, but it does not afford that guarantee from hæmorrhage, which the ligature ensures. In many cases, however, this ought not to deter us from having recourse to it. This is more particularly the case when the pedicle is small, and not very vascular. Perhaps, as a general rule, we should employ the ligature in order to command the flow of blood, and excise the uterus close to the constriction, as no advantage would be gained by allowing it to slough off.

There are two modes of operating when removing the uterus entire. The one is usually denominated Gutberlat's, the other Sauter's. Gutberlat performs his by first carrying a ring with a long handle into the vagina, in order to steady the os uteri. He then makes an incision along the linea alba, taking care to avoid the bladder, which should be emptied previously to the operation. This incision is sufficiently long to admit of the hand being introduced into the cavity of the abdomen. This being done, he separates the uterus from the ligamenta lata, rectum and bladder; and the os tincæ from the vagina. He then lifts out the uterus, and closes the wound. No difficulty can be encountered in removing the uterus by this process, but the almost inevitable supervention of peritonitis, will ever render it one of the most dangerous operations of surgery. It, like Sauter's, has been modified by almost every surgeon who has followed it, but until we possess the means of anticipating peritonitis, it is to be feared that every succeeding attempt will serve only to swell the catalogue of failures.

Sauter's method differs from the preceding, in not requiring any incision through the abdominal parietes. The operator introduces hooks into the uterus, and, by steady traction, brings it into the vagina; he then separates the os uteri from its attachment with that canal; next proceeds to detach the bladder, broad ligaments, &c.; and, lastly, antiverting the uterus, dissects it away from the rectum.

M. Recamier recommends us to secure the uterine artery some days before operating, in order to prevent hæmorrhage; this, he maintains, may be done by tying it from the vagina or rectum.

It is impossible to say which of these two operations is the more deserving of confidence, as they have both proved fatal in almost every instance in which they have been tried. That of Sauter's is the more plausible, and has a better *primâ facie* appearance, as it obviates the necessity for making any incision in the abdominal parietes. It is, however, far more difficult of execution than the other.

The conclusion to which we are led by the foregoing facts is, that the removal of the uterus entire, when attacked by cancer, is not justified by the result of the cases in which it has been tried. In fact, the risk of peritonitis is so imminent, and the danger of the patient sinking from hæmorrhage so great, as, when taken in conjunction with the tendency which cancer has to relapse, I fear for ever to preclude us from placing any reliance on the good likely to result from this operation.

It is evident that these remarks can apply to those cases alone, in which we have indubitable evidence that the disease is confined to the uterus; and yet what means have we of satisfying ourselves that this is the case, and that none of the pelvic viscera are affected? The utmost information we can obtain amounts only to a probability.

But when, by repeated and careful examination, we have ascertained that the disease is confined to the neck, I think little doubt can be entertained of the practicability and propriety of excising the cancerous portion. Indeed, we have not so much reason to dread a relapse when the disease attacks the uterus, as when the glandular structure is the seat of its ravages. There is a sufficient number of instances recorded of this operation having been followed by permanent success, to induce us to have recourse to it, with almost as much confidence as to the amputation of the mamma when affected with cancer.

A question has been raised—Can a woman, after the extirpation of the uterus, ever become the subject of an extra-uterine conception, should the vagina not close and form a cul-de-sac?

This question would be difficult to answer, in those cases in which the ovaries and Fallopian tubes have been left in the cavity of the pelvis. In a case published by Mr. Hunter, of Dumbarton, both ovaries remained, and sexual desire was not affected; but I am not aware of any instance in which extra-uterine pregnancy has actually occurred. It is obvious that nothing of the kind can ever happen to the woman whose case forms the subject of these pages, as the left ovary was the only portion of the uterine

appendages not found in the bowl, and all sexual feeling is extinct.

I have not met with any case which may fairly be considered as parallel to the present.

The points of difference are sufficiently important to bear me out in asserting that it is peculiar in many essential particulars. In none of the cases with which I have met has the removal of the uterus been effected by the woman herself: sometimes it has been excised by an ignorant and blundering midwife, and at others it has been deliberately extirpated by surgeons of rank and standing in the profession.

In almost all the successful cases convalescence has been long, tedious, and imperfect; in the present, the patient recovered in little more than the time usually required after an ordinary confinement. In the majority of instances, peritonitis, in a greater or less degree, has supervened; in the present no symptom of it ever appeared, if we except the tenderness perceptible on the left side, which, however, never was urgent enough to call for any active treatment.

In all the other cases the mammæ became wasted and absorbed; in the present instance they are still prominent; but this, I think, may be attributed to her perseverance in permitting the child to suck.

The London Medical
AND
Surgical Journal.

Saturday, March 12th, 1836.

FREE HOSPITAL, GREVILLE STREET.

SINCE our last number appeared, we have been informed that fifty of the most respectable governors of the Free Hospital have withdrawn their support from the institution, and we have reason to know that others will follow their example. It is a monstrous evil in the management of public charities, that a few individuals can outrage reason, justice, and charity, injure the diseased and destitute poor, and insult the medical profession. The source of these evils is sometimes to be traced to some interested governor or medical officer, who, under the pretence of charity, jobs and abuses the interests of the institution, or makes them subservient to his own selfish purposes. Such person or persons pack a meeting, and carry any measure, however detrimental to the prosperity of the hospital or dispensary. Look, for instance, to Christ's Hospital, to St. George's Hospital, to the Aldersgate Street Dispensary, and to the Free Hospital, for the gross abuses in the management of public charities. But better times are at hand; the delinquencies of these and other charitable institutions will be brought before the legislature, and speedily corrected.

The governors of public charities ought to have no power in electing medical officers, and such appointments ought to be made by the medical corporations, whose members are the only competent judges of the comparative merits of rival candidates. When once elected, the medical officers ought not to be removed from their situations, unless by the decision of the College of Physicians, Surgeons, or Society of Apothecaries. Such is the mode of election, and of removal in different parts of continental Europe—and it is infinitely more wise and just than our own.

It is scarcely necessary to comment upon the injustice and insult done to Mr. Tweedie, by some of the governors of the Free Hospital. They absolutely set themselves up as judges of medical etiquette, they superseded the decision of the College of Surgeons, and they dismiss an honorary officer with as little ceremony as if he were messenger or porter to their establishment. And what are the grounds for this? because they the governors, in the plenitude of their wisdom, and in their ardour for the support of the dignity of the medical profession, are shocked that Mr. Tweedie's letter must be misused by Mr. Franks.

Here then is a precedent for the governors of all infirmaries and dispensaries; and henceforth the tenure of the medical officers who give their services gratuitously, may be got rid of at any general meeting of gover-

ors. Few respectable physicians or urgeons, we are disposed to think, rill solicit such appointments, or exose themselves to such danger of nsult and injustice.

In our opinion, Mr. Tweedie was nost shamefully and unjustly insultd; and we again advise him to pubish a full statement of his case, which he ought to forward to all he governors of the Free Hospital, o all the medical corporations and ocieties, and to Mr. Warburton, Mr. Vakley, and other members of the Medical Committee of the House of Commons, as soon as that body reumes its sittings. His cause is that of the whole profession, and it is also one of considerable public importance as regards the misconduct of the governors of public charities. It forcibly demonstrates the necessity of legislative interference for the better management of charitable institutions.

REMUNERATION OF MEDICAL WITNESSES AT CORONERS' INQUESTS.

Our readers will hear with satisfaction, that Mr. Wakley's proposed bill for the remuneration of medical witnesses, is most favourably received by the House of Commons, and will pass without any opposition. We may augur favourably of Mr. Warburton's medical reform acts, which have the support of the government, and one branch of the legislature. The medical, like the municipal corporations, will be thoroughly reformed, and all their opposition is perfectly useless.

SUPPRESSION OF QUACKERY.

In a few days we hope to record the favourable reception of Mr. Wakley's intended bill for the suppression of quackery, and the utter extermination of the host of knaves that now infest this metropolis, who first rob, and then poison many of their credulous followers. The profession is at length represented in Parliament; and we felt always convinced that our honourable contemporary would advance its interests if returned a member of the legislature; and under that impression, he had our vote and interest.

The late French reports and conclusions against empirics and their nostrums, are replete with unanswerable arguments, and we have no doubt but Mr. Wakley will urge them, if necessary.

WESTMINSTER HOSPITAL.

Saturday, March 5th.

Fungous Disease of the Mamma—Removal of the Tumour by Mr. White.

The patient, a healthy looking woman, apparently about 40 years of age, had a large fungous growth issuing from the right breast, which had continued to increase up to the time of her admission into the hospital. The anterior surface of the breast is ulcerated, having a sloughing appearance; on the least pressure there is a slight flow of venous blood, as well as an ichorous discharge. The tumour, which was of a bell-shape, had attained a considerable size, measuring nearly 12 inches in circumference at its base. The operation consisted in making one oblique incision through the cervix of the tumour, and thus removing the whole mass at once: the edges of the wound were then easily brought together by adhesive plaister. Three vessels were secured.

On the mass being cut into, it exhibited a sort of semi-sarcomatous growth. Dr. Todd remarked that it was a kind of disease which Mr. Kiernan had described as albuminous sarcoma. Mr. White was of opinion that in diseases of this kind the healthy structure was absorbed. He knew a similar case, where the patient became *enciente* whilst the disease was rapidly going through its various stages, and eventually nourished a fine healthy boy at the opposite breast.

FREE HOSPITAL, GREVILLE-STREET.

To the Editor of the London Medical and Surgical Journal.

Sir—The disgraceful scene which took place on the evening of the 1st of March, at the Gray's-inn Coffee-house, has been spiritedly and ably denounced in your last Journal. As a late governor of the Free Hospital, perhaps you will allow me space in your valuable Journal for the purpose of making a few observations on the question. Whatever, sir, might have been the indiscretion of Mr. Tweedie in giving Mr. Franks a certificate, it was but, after all, an error of

judgment—an error which several distinguished members of the profession fell into—one of them, if I mistake not, a member of the council of the College of Surgeons. Is Mr. Tweedie, then, more to blame than the other gentlemen who have indiscreetly given testimonials in favour of the efficacy of the Solution of Copaiba? Certainly not, unless

> "A saint in crape is twice a saint in lawn:"—

unless, indeed, a member of the college council may do with impunity that which is highly culpable in one who is not so distinguished. The utter inconsistency of the "uproarious" governors, as you well term them, stands forth much in the manner of sage Dogberry—"Write me down an ass. Oh! that he were here to write me down an ass!"

They have written themselves down as asses in the most unqualified sense of the word, as obstinate, as stupid, and as dull. Why! did not Mr. Tweedie do all he could to prevent the publication of his testimonial? He did: and yet they, fearful of bringing their institution into contempt, have thrown upon it a stain of ignominy such as its charities will never remove, and such as its governors will never be able to erase.

With regard to the blackguardism—for it cannot be better styled—that distinguished certain so-called governors in "dirty morning gowns," &c., it is of a piece with the spirit that dictated the removal of the meritorious honorary officers of the hospital. One youth particularly amused me by endeavouring to teach you, sir, professional etiquette, when he proved, by his ignorant interruptions, and his impudent assertions, that he had not a knowledge even of the common every-day politenesses of life, much less of the ethics of a liberal and enlightened profession! I should advise that young man to attend a course of lectures on Medical Jurisprudence, and read a few of Chesterfield's letters on politeness, before he again attempts to enter society, much less to make himself a conspicuous person in it; for his conspicuousness will be as disgusting and unseemly as his last display of medical politeness.

I shall pass over the painful subject of the outrage and uproariousness of this low meeting, and turn for a moment to the conduct of the medical officers on the occasion. The decided manner in which Dr. Uwins, yourself, and Mr. Lucas acted, cannot be too strongly complimented; but what shall I say to the others? Mr. Marsden I shall leave to his own reflections. Mr. Jones, though a stranger to me, except in name, will pardon me for being plain in what I shall say to him. I tell him, sir, that his conduct was not so decided or so straightforward as it should have been. His own acknowledgment as to how he should act, proves this. He should join the majority of the governors whichever way they decided. Now, I contend that this was not that decided mode of action which should have distinguished him. There was either a good reason for ejecting Mr. Tweedie, or there was not. If there was, in Mr. Jones's mind, a good reason for the ejection, then, I say, he should have voted for that step being taken; but, if there was not a sufficient reason, and he felt so, then, I say, as a brother medical officer in that institution, he should have resigned as his brethren did, and not have rendered himself liable to the charge of inconsistency and indecision. His conduct should have been more independent—more worthy of his associates—and more honourable to the cause. Probably, sir, with your permission, I may make a few more observations on this subject next week. In concluding now, I beg to say, I have withdrawn my name as a governor, and I have reason to know a great number have followed my example.

I am, your obedient servant,
A LATE GOVERNOR OF THE FREE HOSPITAL.

MEDICO-BOTANICAL SOCIETY.

Tuesday, March 8, 1836.

EARL STANHOPE IN THE CHAIR.

Mode of Drying and Preparing the Leaves of the Conium Maculatum for Medicinal Use—Palm Oil Nuts—Impure Castor Oil—Alteration in the Time of Meeting of the Society.

UPON the table were exhibited the fresh leaves of the conium maculatum; Dr. Sigmond made some observations on the best mode of drying them, and preparing them for medicinal use. He observed that they should be laid in thin layers in baskets of willow stripped of its bark, in a room from which all access of light is prevented, that they should be exposed to a temperature of somewhat less than 212 degrees for three or four hours; they then should be turned, and the heat kept up for eight hours; at the end of that time they are easily crumbled in the hand into a fine powder, of which a fine sample, made in that manner by Mr. Battly, was laid on the table. Dr. Sigmond observed, that great difference of opinion existed as to the proper season at which the leaves should be gathered, whether the spring or autumn: he thought the autumnal season was the best, and that the leaves at that time produced a much more striking effect than at any other period.

On the Palm Oil.

Some nuts were sent by Mr. Montgomery Martin, the author of the Observations on the British Colonies.

Mr. Everett had some of them sent to him by a gentleman who had considerable commerce with the river Gambia, and he had now an opportunity of shewing them to the Society with the oil on the surface: on cracking them they are found to contain a white kernel, with a brown covering, which are very oily, the husk is extremely hard and thick, so hard as to require a vice to break them. The kernels possess a large percentage of oil. The properties of the oil are stearine and oleine. The fat does not become rancid, but remains pure, in the same way as the oil that is obtained from the cocoa nut. The melting point is 73°; the stearine does not melt under a temperature of 80°. The oleine becomes solid about 46°. The seeds possess no medicinal effect.

Impure Castor Oil.

In making some observations on the seeds of the castor oil, comparing them with other of the order Euphorbianæ, Dr. Sigmond took the opportunity of stating that a great fraud was at this moment practised on the profession and the public by the substitution of a very deteriorated castor oil from that which was usually employed. A company was established to render the most rancid and ineffective castor oil apparently good—a process had been discovered by which its external appearance was improved, although all the medicinal effects were completely lost; and as they were enabled to sell this miserable substitute at a very cheap price, it had found its way into commerce, and many medical men, deceived by its appearance, had employed it to their own great mortification, and to the disappointment of their patients.

The President, at the adjournment of the meeting, stated, that in consequence of a great number of members of that Society being also members of the Medico-Chirurgical Society, it had been thought proper by the Committee to alter the evenings of meeting, and that for the future the meetings of the Medico-Botanical Society would take place on the second and fourth Wednesdays of the month.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 5th, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Extraordinary Phenomena in the Pulse—Modus Agendi of Medicines.

Dr. Uwins inquired of Dr. Johnson the state of the patient whose case he had mentioned at the last meeting*. He (Dr. U.) always looked on cases of such a description with suspicion; he had witnessed several instances in which the pulse was similar to that in Dr. Johnson's case, in which some cerebral affection was going on, though that was the only symptom indicating the fact; he was always fearful when convalescence took place with such a pulse.

Dr. Johnson had seen the patient alluded to that day; the pulse had gradually, since he last mentioned the case to the Society, decreased in number, and is now 85. The young gentleman appears in excellent health, and takes a great deal of exercise; there yet seems, however, a greater impulsion from the heart than is general in perfect health. He (Dr. J.) was more afraid of a slight degree of hypertrophy existing, than of the presence of any cerebral affection.

Dr. Jewell fully agreed with Dr. Uwins, that the presence of such a pulse as the one in question occurring in convalescence, was indicative of something wrong going on in the system. He had lately witnessed, in puerperal women, several cases in which such a pulse was the only symptom denoting any affection going on, yet they were shortly after attacked with puerperal mania.

Dr. Uwins was now called on for his paper on the *modus agendi* of medicines, which will be found elsewhere in this number.

Hospital Reports.

NORTH LONDON HOSPITAL.

Fracture of the Thigh—Giving way of the Callus on the Seventy-first Day.

Ann Davis, aged 39, married, without children, was admitted on the 23rd of December, under the care of Mr. Cooper. On the 21st of December she was knocked down by a cab, the wheel of which passed over the left thigh, about three inches above the knee, causing an oblique fracture of the bone in this situation. Immediately after the accident, she was carried home and left in bed, without any assistance. Her thigh was much distorted, and extremely painful, and, according to her own account, "three times as large as the other." On the second night, she sat the greater part of it with the affected limb hanging over the side of the bed.

23rd. This evening the woman was brought into the hospital. The thigh was much swollen, a great deal shorter than the other, exceedingly distorted, and frequently agitated by violent spasmodic action of the muscles.

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* See Med. and Surg. Journal, p. 156, No. 5, vol. i. 1836.

The limb was placed on M'Intyre's splint, knee bent, and side splints.

Jan. 21st. Twenty-eighth day. Bandages undone; limb lies well, apparently; some œdema of the leg and foot. Says she feels motion when she coughs.

Feb. 9th. Fiftieth day. Bandages undone; splint taken from under the limb for the first time since the second day. The bone was united in a very neat manner. General health good.

17th. Fifty-eighth day. Limb removed from off the splint to-day; quite straight, and apparently firm.

21st. Sixty-second day. Splints removed altogether. Limb lying in the extended position. Feels it tender when handled. Œdema of the leg and foot continue.

March 1st. Seventy-first day. Mr. Cooper thought he detected a little motion in the provisional callus to-day, yet the woman could lift up her leg, if the weight of the foot was diminished.

2nd. Seventy-second day. During the night, the woman was sensible of a great deal of pain in her limb, and observed it to become bowed outwards and swollen.

3rd. It is quite evident that the limb has suffered partial division of the fracture. It is shortened, and the bones ride. Extension very easily restores the natural length of the limb. Limb placed on the long splint of Desault.

4th. Is quite easy. The limb the same length as the other. Has passed a better night than any since she has been in the hospital.

Mr. Cooper remarked of this case, that Dupuytren, in the fourth volume of his "Leçons Orales de Clinique Chirurgicales," had published some interesting observations on the formation of callus and the various stages of the process of its formation. "You know," said Mr. Cooper, "that, for a long time, the strength of a bone which has been fractured and united, depends entirely upon a deposit of new osseous matter around the fractured part, and that such deposit remains as a temporary support, until the ends of the fracture have themselves become consolidated, which is rather a slow and late occurrence, not completed for some months. Consequently, the provisional callus and the definitive callus are very different things. When the latter is finished, the patient is perfectly safe—the bone will not give way again at the united part. But, while the stability of the fracture depends on the external or provisional callus, and it has not acquired a certain degree of solidity, if the apparatus be removed, and the limb left to be acted upon by the muscles, deformity will follow, though the limb may previously have been of its proper length and figure. The case of Ann Davis exemplifies this unfavourable change taking place in the femur as late as the seventy-first day.

"Baron Dupuytren's observations prove, not only that the provisional callus will sometimes gradually bend and yield to the action of the muscles, and when subjected to the weight of the patient's body, but that the very same disposition of it renders it capable of yielding again, either gradually or suddenly, to surgical plans calculated to restore the proper shape and length of the limb. In our case, the limb can be brought into a proper position, and to its right length, at once. We have therefore put it up again in an apparatus, and in the extended posture, on account of there being some excoriation in the pain, rendering M'Intyre's apparatus inconvenient. I think we shall also find it necessary to follow the maxim laid down by Dupuytren, namely, that of keeping an old fracture, under these circumstances, quite as long on the apparatus, or in splints, as if it were a perfectly recent accident."

Fissure of the Skull—Abscess of the Brain five Weeks after the Receipt of the Injury.

George Goddard, aged 30, painter, was brought into the hospital late at night, on account of a wound of the scalp inflicted by falling a considerable height upon his right forehead. The wound was small, of an inch transverse length; the bone was exposed and was rough; the probe or finger did not indicate any fracture of the bone. The man was drunk, and had met with the accident in attempting to get in at a first floor window. He was recommended to stay in the hospital for a few days. This he declined. He was cautioned to lose no time in coming or sending to the hospital should he be seized at any time with rigors, &c. He came next morning, according to request, and was bled to 16 ounces, and took a saline purgative.

Mr. Cooper prefers this treatment as a prophylactic against future ill consequences. About a week after the receipt of the injury he was seized with rigors, nausea, and pyrexia—pulse frequent and rather full. He was bled, purged, and took antimonials. He now consented to come into the house.

Jan. 29th. Mr. Cooper saw him to-day; wound gaping and foul, edges swollen and painful. Headach, restlessness at night. Pulse 96, rather small. Tongue white. To keep his bed and have low diet.

Feb. 7. Considerably better. Pulse natural. Skin moist. Tongue clean. Wound looking better.

24th. There is a collection of pus over the right eyebrow: it can be made to escape by the wound. Pressure with a compress of lint practised, so as to ensure the escape of the pus as it is secreted. Had a dose of calomel and cathartic infusion.

A few days after, a counter-opening was made at the lower part of the collection; a small branch of the temporal artery bled freely.

Mr. Cooper considered that necrosis of both tables would probably occur. The probe discovers a portion of the bone to be bare, to the extent of half a crown. Two grains and a half of hydriodate of potash to be taken three times a-day.

25th. Is much worse, great agony at night causing him to moan much. Sleeplessness. Pain in the occipital region. Urgent sense of distension of the eye-balls. His intellects are perfect during the day, but he wanders at night; yet he is very easily roused into rational conversation. There are no symptoms of pressure, or the formation of pus. He has had one rigor, four days before he died.

Mr. Cooper considered the case as one of cerebral irritation, from the process of necrosis. There are no circumstances which could warrant the operation of trephining. The edges of the wound are contracting down to the dead bone, and look healthy. The counter-opening has healed. He had a blister to the occiput, and took calomel and purgative infusion.

29th. It is now about five weeks from the occurrence of the accident. He died at eight this morning. For about a week before he died, his pulse had come down from 90 to 48, and was become a little irregular.

Post-mortem Examination Twenty-eight Hours after Death.

The periosteum around the exposed portion of the bone was soft and much thickened. The bone dry and white, and bare to the extent of about half a crown. On raising the skull-cap, a patch of coagulable lymph, corresponding in size to the portion of exposed bone, was found on the surface of the dura mater, which was here separated from the bone. The patch had an albuminous, unguous, semi-purulent aspect. The inner surface of the membrane appeared natural. An abscess of the anterior lobe just in front of the corpus striatum, was found on the right side. The abscess was deeply seated. It did not involve the anterior cornu of the ventricle. It was of about the size of a walnut, and contained pus of an unhealthy colour. The left hemisphere of the brain appeared to be more vascular than natural. No other disease was noticed in the brain, except a little opacity over the cerebellum. On examining the calvarium, which had been detached, it appeared that a very fine fissure existed in the centre of the exposed portion. Externally it was so extremely indistinct as to leave a doubt of its existence in the minds of several who examined it. On the internal surface the irregularity was a little more apparent. The portion of bone laid bare was of a dull straw colour. All around it was pink, from extreme vascularity.

Mr. Cooper said, This case makes another addition to the many proofs which the records of this hospital furnish, of the dangerous and fatal consequences frequently resulting from an injury of the head, even though at first the symptoms may appear to be but unimportant. It exemplifies also the well known fact, that patients who receive blows on the head often die at a late period after such accidents, in consequence of inflammation and suppuration, or other disease of the brain and its membranes taking place in a slow and insidious way, such as at first scarcely raises any suspicion of danger. This man, in the commencement of the case, had no urgent indisposition. He was stunned by the fall, but soon regained his senses, and walked to the hospital. He did not consider himself ill enough to require admission; he did not stop, therefore, but, after the wound had been dressed, left the hospital, promising to return in the morning, in order to be bled. Sixteen ounces of blood were taken away, and he was put on the antiphlogistic plan.

A week after the accident, he had an attack of shivering—a particularly common event within the first ten days after a blow on the head, and always likely to be followed by inflammatory mischief within the cranium. A rigor taking place within a few days after a blow on the head, so violent as to have stunned the patient, is always to be regarded as a circumstance portending the probability of the commencement of a slow suppuration of the brain, or its membranes.

Every surgeon, however, who has paid attention to the symptoms of disease of the brain, is perfectly aware of the great diversity which they exhibit in different cases, even without the *post mortem* appearances affording any satisfactory explanation of it. Whoever looks over Dr. Abercrombie's valuable treatise on this subject, will find numerous cases and observations confirming what I am now stating. In some instances, where softening and suppuration of the brain had taken place, there was paralysis, coma, and other symptoms of pressure; in others, the effects seemed to be of an entirely different description. In our case, the main symptoms attending the production of a large abscess in the brain from a blow on the head were—

1. Great pain in the head at night, and also during the day, if the patient stooped.

2. Wandering of the intellects at night, with return of reason in the daytime.

3. Sense of great weight in the orbits, and tension of the eyeballs; but no imperfection of sight.

4. Remarkable slowness of pulse for two days before death. *It fell suddenly from* 96 *to* 48, *with intermissions.*

5. No vomiting—no coma—no paralysis—nothing indicative of pressure on the brain.

A necrosis, affecting both tables of the skull, attended with dangerous and urgent symptoms, whether of irritation, or of suppuration of the dura mater, is justly considered, I believe, a case in which the patient will have the best chance of recovering, from the application of the trephine. Had any decided symptoms of pressure presented themselves, I should have trephined this patient. It would have been proper, though, from the situation of the abscess, no good would have resulted from it. In the museum over the way are two preparations, exhibiting very similar morbid changes to those seen in the case before us, and produced, likewise, from the effect of a blow on the head, viz., disease of the dura mater, and abscess of the anterior lobe at some depth from the surface.

ST. GEORGE'S HOSPITAL.

Thursday, March 3.

THERE were two operations at this hospital to-day. The removal of a tumor from the palate, which was of some years standing, and had not lately increased much in size.

Sir Benjamin Brodie removed it by dissecting it from the bone: he afterwards applied the actual cautery. He said, "he was not certain that the tumour was of a malignant growth, still he thought it right to use the hot iron, so as to cause slight exfoliation of bone, to prevent its return.

The next operation was of more importance, and one which has not often been performed in this country—removal of the head of the femur from the acetabulum. It was a case of exostosis—several deep abscesses had formed, and great quantities of pus had been evacuated at various times. The patient had been some time in the hospital, and his general health was much impaired. In introducing a director into one of the openings, which were situated in front of the anterior inferior spinous process, it passed downwards to the extent of about three inches.

The great trochanter, and some portion below was laid bare by an opening which had been made previously, with a view of laying open an abscess, and ascertaining the real state of the disease. The bone was much enlarged, and several spiculæ had come away. Sir B. Brodie began the operation by enlarging the previous opening; the incision extended from about two inches above the trochanter major to about four below it. He then dissected off the muscles attached to the bone, and sawed it off just below the trochanter. The capsular ligament was partially destroyed by ulceration, and the round ligament entirely so which added somewhat to the expedition o the operation—one small vessel was take up. The patient was removed from th operating theatre at the expiration of 2 minutes.

Sir B. Brodie remarked that the operatio was very much prolonged in consequenc of the great disease in the bone as well a in the soft parts; the vessels and nerves i the immediate neighbourhood were not i their natural position; consequently he ha to see his way clear, and avoid injurin them. He said the removal of the entir limb would have been a much easier opera tion; but, that from the depressed healt of the patient, he feared so great a shoc would have been fatal: and that he had see a similar operation to the present do well i the Westminster Hospital under Mr. Whit

It may not be amiss to remark here, tha if the dressers, and even the hospital su geons, were to keep a little to the side of th table, the students would have a muc better opportunity of witnessing the opera tions. It must not be understood by th remark, that any imputation is wished to l cast on the official character of the su geons, as the writer is fully aware that th interruption of the sight of the student arises, not from any intentional disrespec but from a want of knowledge that they d interrupt the sight.

This hospital has been very much libelle by one of the Medical Journals. Th surgical staff are far more liberal here, tha at many of the larger institutions. The is no restriction to strangers on operatin days, which is of great importance.

Foreign Medicine.

Extirpation of the Neck of the Uterus of Woman aged 43, by M. Amussat.

MADAME L. had always enjoyed goo health in her youth; she married at twenty five years of age, had a miscarriage, a afterwards about thirteen years since pregnancy of the usual term. Her husban has had several venereal affections; neve theless she never perceived that she w affected. Her occupations were laborious, which several inflammations of the abd minal viscera that she suffered from may b attributed.

In 1831, she became first affected wit pain in the side, hypogastrium, kidney and loins; after the cessation of the cat menia, which appeared three times in month; and during connection, she fe great smarting in the vagina, followed b lancinating pain, and a flow of a yellowis white fluid.

In January 1836, her general healt which had been previously good, began t

r, and she found that she had a discharge
a continual and very severe pain in the
ina. She resolved to examine herself,
thought she felt something abnormal in
vagina, which was very sensible on
ssure. At this period she consulted M.
ussat who, having examined her first
h the finger, and afterwards with a
culum, found the neck of the uterus was
pressed, and surmounted by a fungus,
her voluminous, soft, and emitting a
agreeable odour. This tumour M.
nussat thought to be of a cancerous
ture. M. Bodson, the family physician
d obstetrician, also examined it, and agreed
h M. Amussat, that he should operate;
ich he did in the following manner:—
The patient lay on a sofa, the legs bent
the thighs, and the latter kept separated
d strongly flexed on the pelvis. A
vided speculum was introduced, the
mour carefully examined, and then seized
d drawn outwards with a three branched
naculum, and a straight polypus forceps,
hich could only be done by fixing the
struments in the healthy tissue, for the
nterior extremity of the tumour was so
ftened that it was torn by the slightest
raction. M. Amussat, drawing out the
peculum, and causing the assistants to
ilate the vulva, began by making an in-
sion in the healthful tissue, with a curved
nd buttoned bistoury. The operation was
etarded by a considerable jet of arterial
lood. M. Amussat made a torsion of the
essel, which immediately ceased bleeding.

After the operation several small arteries
ave way, and M. Amussat proposed to make
orsion; but, in conjunction with M. Bodson,
e thought these vessels were so small, that
o serious hemorrhage need be feared.

The patient was placed in bed, and the
parts covered with linen; but at the end of
ome hours, all the cloths being stained
with blood, and the vagina greatly distended
by an enormous clot from which the blood
oozed, lint steeped in vinegar was then
applied, but without removing the coagulum.
This was kept in its place by a strong com-
press, and the parts were wetted from time
to time with cold water.

M. Amussat presented to the academy the excised part, which he thought to be of a cancerous nature, though the tumour was somewhat analogous to syphilitic vegetations that are of less volume.

This case ought to induce practitioners to make torsion of the uterine arteries, an operation performed with success by M. Amussat. They can thus prevent the hemorrhages that usually followed the dangerous operation of amputation of the neck of the uterus, the result of which is so often fatal.

But in making torsion care must be taken not to let go the uterus, for that organ being greatly stretched during the operation, when once freed from the tenaculum returns to its position, and renders the discovery of the arteries that require torsion very difficult. In amputation of the neck of the uterus, whenever the method practised by M. Amussat cannot be followed, cauterization should be always employed, which has the double advantage of arresting the hemorrhage, and detaching the diseased portion of the uterus that could not be removed with the knife.

The patient who is the subject of this report is now, the fourteenth day after the operation, quite well. The bleeding has not reappeared, and every thing seems to promise the full re-establishment of her health.—*Gaz. des Hôpital.*

ACADEMIE DES SCIENCES.

Fœtus vomited by an Infant.

M. Geoffrey St. Hilaire has received from M. Ardoin several interesting observations on the fœtus vomited by an infant, which has been already noticed. The head and one arm of this fœtus are very distinct, and in about the state of development observed from the fortieth to the fiftieth day of intra-uterine life. In place of the inferior extremities, there was only a fleshy prolongation, slender at its extremity, and united to its placenta by a sort of sheath, which occupied the place of the umbilical cord. Young Demetrius, who vomited this fœtus, seemed at first to be recovering, but he has since sunk; and on a part of the intestinal tube the fœtus was attached.

BOOKS.

Flora Metropolitana; or, Botanical Rambles within Thirty Miles of London: being the results of numerous Excursions made in 1833, 1834, and 1835; furnishing a list of those Plants that have been found in the different heaths, woods, commons, hills, &c. surrounding the metropolis (more particularly the counties of Surrey and Kent), chiefly from actual observation, and the latest authorities. Intended for the student in Practical Botany, with a List of the Land and Fresh-water Shells of the Environs of London. By Daniel Cooper. 12mo. pp. 139. London.

A very useful Manual for British Botanists.

Preparing for Publication,

Observations on the Efficacy of Iodine in Secondary Syphilis. By Forbes Winslow, Member of the Royal College of Surgeons, London.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

cially the case amongst the lower classes of he people. Impure air, deficient clothing, mproper exercise, want of nutritious food, nd many other causes of a debilitating na- ure, are favourable to the formation and growth of pulmonary tubercles; but the vice f drunkenness is, I do believe, much more destructive to the consumptive constitution han most other causes put together. When predisposition to that disease exists from irth, as is very frequently the case, there is o way so certain of bringing it into action s by the immoderate use of ardent spirits; nd where there is naturally a good consti- ution, and one that is free from any ten- ency to it, there is no way by which it can e generated with so much certainty as by hat of the vice to which I am alluding.

"The injurious effects resulting from the mmoderate use of ardent spirits are not onfined to any one organ or part of the ody. It is because it thus weakens the tomach, and prevents the proper assimila- ion of the food, deranges the circulation of he blood, and favours congestions in parti- ular organs—prevents the due performance f the different acts of secretion and absorp- ion, and embarrasses the nervous, respira- ory, and muscular systems—that the whole ody is brought into a state favourable to he production of tuberculous disease. It s, therefore, not at all wonderful, that, wing to this cause alone, there should be rom pulmonary consumption, which is one f the most fatal forms of these, an immense nnual loss of life.

"In addition to a general constitutional ebility which the immoderate use of ardent pirits occasions, it produces, either directly r indirectly, a state of pulmonary conges- ion, which, as I have already stated, is a ondition most favourable to the develop- ent of tubercles. Any one who has wit- essed a case of intoxication, must have bserved the great reduction in the number f respirations in a given time, when com- ared with what takes place in health. ow, during this slow state of the respira- on, the blood does not pass with the ecessary ease through the lungs, and the onsequence of this is an over-distended tate of their blood-vessels. It would there- ore appear, that one of the most dangerous ffects from the immoderate use of ardent pirits in consumptive habits, is that of a ongested state of the pulmonary vessels."

Dr. Little does not believe consumption o be infectious, but he is fully persuaded hat it is highly injurious for a healthy per- on to breathe in the vitiated atmosphere hich surrounds a patient labouring under in the last stage. This is more particu- arly the case if the patient is of a con- umptive habit. He has known several cases where the attendants, or those who slept in the bed with persons in the last stage of the disease, were attacked with it, though they had never manifested any tendency to it before such exposure. We cannot help observing, that this pathology requires something more than assertion to confirm it; as we have known numerous examples in which near relatives slept in the bed with the consumptive with perfect immunity. Our author's assertion proves too much, when he says the disease is not infectious and he will have it infectious.

—o—

A Treatise on the Chemical, Medicinal, and Physiological Properties of Creosote; Illustrated by Experiments upon the Lower Animals: with some Considerations on the Embalmment of the Egyptians—being the Harveian Prize Dissertation for 1836. By John Rose Cormack, Member of the Royal Medical and Physical Societies of Edinburgh. 8vo. pp. 154. Edinburgh: Carfrae & Son. 1836.

THIS is a well executed compilation of nearly all that has been written on the merits of Creosote. The author consulted many modern publications, and collates a good portion of their contents. He has not, however, quoted the late report delivered to the Academy of Sciences, in which it is stated that creosote is by no means so powerful or useful a remedy as alleged, and that it has failed in a variety of cases in which it said was to be infallible.

The following list contains the diseases in which creosote is efficacious or useful—toothach, caries, burns and scalds, recent wounds, by arresting hæmorrhage even of the carotid, ulcers and chancres, cancer and lupus, cutaneous diseases, chronic glanders, purulent ophthalmic gonorrhœa, menorrhagia, tumours and excrescences of various kinds, bubo, condyloma &c.; diabetes, epilepsy, neuralgia, and other forms of nervous excitability; it arrests vomiting, is a tonic, cures colica, pictonum, hysteria, anasarca, ascites, phthisis and diarrhœa, &c. Numerous physicians and surgeons are cited who attest the efficacy of creosote in the above-mentioned cases; and the spirit of Bishop Berkley must joice at the infallibility of tar, or tar oil.

Time however must determine whether any single medicine can be safe, useful, or curative in such a host of dissimilar diseases. The essay evinces great industry on the part of the author, and shews that he keeps pace with the rapid progress of science.

—o—

Guy's Hospital Reports, No. II. April, 1836. Edited by George H. Barlow, M.A., Trin. Coll. Cam., Inceptor Candidate of the Royal College of Physicians; and James P. Babington, M. A., Trin. Coll., Cam., Member of the Royal College of Surgeons.

We have often justly accused the medical officers of our metropolitan hospitals, of gross and unpardonable dereliction of duty, in not reporting the numerous examples of disease which necessarily fell under their observation. We placed the Dublin Hospital Reports and Transactions before them, and reminded them,

"Sic parvis componere magnis solebam."

We have at length succeeded, and roused our hospital functionaries to a sense of their duties; but St. Thomas's led the way.

The present number, which is the second of Guy's Hospital Reports, is highly creditable to the Institution, and replete with practical and most instructive reports. Sir Astley Cooper, the revered and universally esteemed parent of English Surgery, is a contributor, and maintains that exalted position in which the civilized world has most justly placed him.

Our high encomium of this work is borne out by the contents of the volume:—

"Cases of Compound Fracture, Wound of the Knee-joint, Retention of Urine, and Hernia; with Observations; by Mr. Bransby Cooper. (With two Plates)—The History of an Unusually-formed Placenta, and Imperfect Fœtus; and of similar Examples, of Monstrous Productions: by Dr. Hodgkin; with an Account of the Structure of the Placenta and Fœtus, by Sir Astley Cooper, Bart. (With three Plates)—The History of a Compound Fracture of the Patella. accompanying a Cast presented to the Museum of the Hospital; by Sir Astley Cooper, Bart.—Cases of accidents occurring to the Large Joints; and Diseases requiring Removal by Operation; by Mr. Aston Key. (With a Plate)—A Case in which Excision of the Elbow-joint was performed by Mr. Aston Key—An Essay on the Excision of Diseased Joints: read before the Pupils' Physical Society; by Mr. Blackburn—Observations and Cases illustrative of the Propriety of Inducing Premature Labour in Pregnancy complicated with Tumour; by Dr. Ashwell. (With four Plates)—Cases and Observations illustrative of Renal Disease accompanied with the Secretion of Albuminous Urine; by Dr. Bright—Tabular View of the Morbid Appearances occurring in One Hundred Cases in connection with Albuminous Urine; by Dr. Bright—Cases of Exostosis of the Bones of the Face, Disease of the Cranium, and Fractures of the Frontal and Parietal Bones requiring Operation; by Mr. Morgan. (With a Plate).

"*List of the Engravings.*—Mr. Bransby Cooper's Cases. Fungus in the Bladder; Diseased Bladder.—Sir Astley Cooper's Dissections. Injected Placenta; Imperfect Fœtus; View of Dissections.—Mr. Aston Key's Case. A Foot, after an Operation.—The Bones of the Foot.—Dr. Ashwell's Cases. Uterus with Tumours.—Another View of the same; Uterus containing large Tumours; Deformed Pelvis—Preternatural Presentation.—Mr. Morgan's Case. Face, before and after the Removal of an Exostosis."

When we inform our readers that they are presented with 225 pages octavo—nearly fifteen sheets of sixteen pages each—and nine beautifully executed plates, some of which are coloured, for four shillings, and the matter supplied by some of our most eminent physicians and surgeons, we need not state that we strongly recommend this work.

We shall give some extracts, which will prove its value.

"*Cases of Compound Fracture—Wound of the Knee-Joint—Retention of Urine, and Hernia. With Observations.* By Mr. Bransby Cooper.

"Case 1. *Compound Fracture of the Leg.*—Patience Leonard, aged 45, a woman of spare habit, was admitted into Guy's Hospital on the 17th August, 1835, in consequence of a compound fracture of the leg, caused by a kick of a horse. Immediately after the accident, she had been taken to the house of a neighbouring surgeon, who had applied a tourniquet, to suppress hæmorrhage, which was so profuse as to lead him to suppose it was owing to the posterior tibial artery being wounded. On examination, an extensive lacerated wound was discovered, about two inches above the ancle, through which a portion of the tibia, to the extent of two inches, protruded. The wound was about four inches in length, extending obliquely across the leg.

"Mr. Higgins, the dresser, supposing from the account given by the surgeon who

first saw the case, that the posterior tibial artery was wounded, did not disturb the tourniquet, but immediately sent for Mr. Cooper; upon whose arrival, the tourniquet was removed, but no hæmorrhage ensued. The woman was in a collapsed state, and the foot was cold: but as Mr. Cooper could feel the pulsation of both tibial arteries, he determined on attempting to save the limb; believing, from the direction of the wound, that the hæmorrhage proceeded from the saphena-major vein. The fracture, as may be supposed from the extent of the wound, might have been easily reduced; but as the upper portion of the tibia was sharp and oblique, about an inch was sawn off, and the fractured ends placed in apposition. A dossil of lint was laid over the wound, the edges of which were brought together by adhesive plaster. Side-splints, with foot piece, were applied, to keep the bones in their position; and the leg was placed in a fracture box. A grain and a half of calomel, and a grain of opium, were ordered to be taken immediately.

"Aug. 18. She had passed a comfortable night, and there had been no return of hæmorrhage.

"21. Suppuration having commenced, a poultice was applied over the dressings, and a pint of porter allowed daily.

"23. On changing the pads, a large ulcer was observed, extending along the calf of the leg, the edges having a sloughy appearance. Pulse feeble: countenance anxious: tongue furred: bowels open. Ordered to take a grain and a half of calomel and half a grain of opium immediately; and an effervescing draught, of carbonate of ammonia and soda, tincture of calumba and cascarilla, with lemon juice.

"25. Slight hæmorrhage from the external saphena vein, which had become implicated in the ulcer. Lint, dipped in nitric-acid lotion, was applied to the sores.

"Fear was now entertained that the limb could not be saved; when a consultation between Mr. Cooper and his colleagues took place; the result of which led to a determination to persevere in the attempt. She was ordered to take six ounces of wine daily; a draught, consisting of ammonia, soda, tincture and decoction of bark; and to continue the calomel and opium at bed time.

"From this period she continued to improve; and the only difficulty now to contend with, was, to dress the wound without disturbing the limb. This was accomplished, by placing it in a swing box, the bottom of which was fastened by hinges, so that the wound could be exposed from below. In a few days the advantage of this apparatus was evident; but the patient now complained of pain in the heel; which, on examination, was discovered to be ulcerated: in every other respect she was considerably improved. The wound through which the tibia protruded, as also that on the calf of the leg, was healing rapidly. A water cushion was placed under the heel: notwithstanding which, she complained of so much pain, that Mr. Cooper was induced to alter the position of the limb, and placed it on its outer side. It was soon, however, necessary to replace it in its former position, in consequence of the patient not being able to lie on her side. Small abscesses formed on the outer side of the foot, giving rise to considerable constitutional irritation, which tended to retard her cure, though not materially to injure her general health.

"Nov. 2. The bones were united, though not very firmly, owing to the frequent necessity for moving the limb, notwithstanding all our attempts to avoid it: indeed, it might rather be said, that the provisional callus maintained the bones in their position, than that their continuity was re-established by ossific deposit.

"In the progress of this woman's cure, repeated openings were formed in the direction of the original wound; and it was, upon several occasions, necessary to make counter-openings: and in this manner her recovery was retarded until Nov. 20, at which period a spicula of bone, about half an inch in length, was discharged. From this she derived considerable relief, and remained for a fortnight free from pain, and her health was greatly improved. The wound, through which the tibia originally protruded, again began to inflame; and a small ulcer formed on the inner side, about an inch and a half above the maleolus internus: the granulations were glassy, indicating the presence of some local source of irritation; and, upon examination, a portion of loose bone being detected, it was laid bare by an incision, and removed. It presented a triangular figure, with its edges so sharp as to account for the degree of irritation which it had produced. Poultices were ordered to be applied to the wound; the tonic medicines were continued, to support her constitution; and narcotics administered, to diminish her irritability.

"Subsequently to the removal of the piece of bone just described, three small portions were spontaneously discharged: and from this period the wounds perfectly healed; her general health was re-established; and, by the aid of crutches, she was enabled to walk about the ward: and, on the 11th of February, at her own request, from her anxiety to join her family, she was discharged from the hospital, with every prospect of the limb recovering its original use, her general health being unimpaired.

"There appeared, in this case, to have been three causes which retarded the ossific union of the fractured bones. First, the removal of an inch of the fractured tibia; secondly, the necessity for the frequent motion of the limb; and, thirdly, the

removal, by the extensive laceration of soft parts, of the surrounding cellular tissue, so essential to the reparation of bone.

"Case 2. *Compound and Comminuted Fracture of the Tibia and Fibula.*—Samuel Kingston, aged 60, was admitted into Accident Ward, Friday, January 29, 1836, having been run over by a coach, near Deptford. The patient was placed in bed; and, on examination, was found to have sustained a compound and comminuted fracture of the tibia and fibula. The external wound extended from about three inches above the inner ancle, in a direction backwards, upwards, and outwards, and was rather more than four inches in length; through which the upper portion of the tibia projected. There had been considerable hæmorrhage; but this had ceased before he was brought to the hospital. the man being then in a state of collapse, and very cold. Neither the anterior nor posterior tibial arteries could be felt pulsating, although this could easily be done in the sound limb. Brandy and coffee were given him; and a note, describing the nature of the accident, was immediately sent to Mr. Cooper, who arrived shortly afterwards: and on making a careful examination of the limb, he was able to feel the anterior tibial artery feebly pulsating; but could not detect any pulsation in the posterior, and therefore concluded that it must have been implicated in the injury. From the consideration of these circumstances, viz. the comminuted and denuded state of the tibia, the injury to the posterior tibial artery, the extent of the laceration and contusion of the surrounding soft parts, and the age of the patient, immediate amputation was advised: to which the patient would not at first consent; but in about two hours he made up his mind to the loss of his limb. The circular operation was performed below the knee; and, as the man had lost so much blood at the period of the infliction of the injury, the stump was not dressed in the theatre, for fear that, should any secondary hæmorrhage occur, the necessary disturbance of the dressings would tend to diminish the chance of its healing, in a constitution already so much weakened. About four hours after the operation, the stump was dressed, and there was no occasion to secure any other vessel. After the dressing, the man seemed much exhausted, and the following draught was ordered: Tinct. Opii m. xxv. Ammon. Carbon. gr. iij. Mist. Camphoræ ℥ i. statim sum.

"On the 30th of January he was better in every respect: the stump was free from pain, although there was a considerable discharge of serum, but which was probably only the separation of the blood which had been diffused into the cellular membrane at the time of the accident.

"On the 31st, he continued to improve, but the serous discharge still continued, and Mr. Cooper collected some, and gave it to his friend Mr. Bird, who submitted it to chemical examination, and stated it to consist of pure serum, with a few globules of insoluble albumen diffused in it.

"From the loss of blood which the patient had sustained, from his former intemperate habits, and from the privations which he had lately undergone, Mr. Cooper considered that the serous effusion might as much depend upon the exhausted and debilitated state of his nervous system, as upon the effusion of the serum from the extravasated blood; and therefore ordered him wine and tonic medicines.

"On the 1st of February, he was infinitely better in every respect, but had had rather a restless night; and, on dressing the stump, the discharge of serum was much less, with some appearance of healthy pus. He was ordered to take a pill composed of a grain and a half of calomel and half a grain of opium, at bed time.

"From the last report, till the end of February, he continued progressively to improve; and precisely in proportion as his general health was restored, did his stump indicate the amendment of his powers, by the condition of the granulations and nature of the discharge. He might, indeed, at that time have been said to be convalescent.

"*Examination of the Amputated Limb.*—There was considerable extravasation of blood into the surrounding cellular membrane: the fibres of the tibialis posticus, tibialis anticus, peroneus brevis, and flexor longus digitorum muscles were very much torn and lacerated; the posterior tibial artery, with its accompanying veins, were torn through; but the posterior tibial nerve was uninjured. The tibia was broken into five pieces, and the periosteum scraped from the upper portion of the bone, to the extent of two inches on its inner surface, where the wheel of the coach appeared to have glided along it: that portion of the tibia which remained connected to the astragalus was very much broken, in the direction of its longitudinal axis: the fibula was also fractured between its middle and lower thirds.

"Case 3.—*Compound Fracture of the Radius, with Dislocation of the Carpus.*—Thomas Belton, a sailor, aged 23, was admitted into Accident Ward, on Monday, Feb. 1, in consequence of an injury to the right arm, caused by a cask weighing about five cwt., which fell on the back part of his wrist, while his hand was resting on another cask. Upon examination the carpus was found dislocated from the articulatory surfaces of the bones of the fore-arm, the extremity of the ulna resting on the palmar surface of the cuneiform bone: the radius was broken immediately above the styloid process; and its superior fractured extremity rested on the palmar surface of the scaphoid bone; the

inferior portion being carried, with the bones of the carpus, upon the dorsal surface of the arm, where it could be both seen and felt projecting. There was also a wound on the inner side of the palmar surface of the wrist, in which the ulnar artery could be seen divided; and there was some slight hæmorrhage from its inferior portion, but so inconsiderable as not to require a ligature.

"The dislocation being reduced, and the edges of the wound being brought together by adhesive plaster, splints were applied, and the patient was placed in bed, with his arm resting on a pillow, and his hand much elevated. Ten grains of the colocynth and calomel pills were immediately given, and a dose of house medicine ordered to be taken two hours after.

"Feb. 2. He had had no sleep; the arm was very painful, and so much swollen, that the splints were removed, twelve leeches applied, and the whole wrist enveloped in a poultice. The bowels not having been opened, the colocynth pills were repeated, and half an ounce of castor oil directed to be given two hours after, should they not have operated.

"3. The arm was less painful, but still swollen and inflamed; and the pulse having increased, both in frequency and power, twenty more leeches were applied, and the poultice was ordered to be continued.

"4. The patient's symptoms indicated considerable constitutional derangement, although his bowels had been opened; his pulse was quick and sharp, the tongue white, and the skin hot. He was ordered to take immediately, and to repeat at bed-time, a grain and a half of calomel and half a grain of opium; and to have two spoonsful of the following mixture every four hours:

Mag. Sulphatis ℥ iij. Liq. Ammon. Acet. ʒ iss. Liq. Ant. tartar. ℥ is. Tinct. Hyosciami ℥ i. Aquæ Menthæ vir. ʒ iss. ft. Mist.

"5. The patient was considerably improved in his constitutional symptoms, although his arm still remained much swollen and inflamed; and he continued up to the 8th much in the same state, and without any alteration in the treatment, the appearance of the arm not indicating any reparative process.

"On the 9th of February, on removing the poultice, a considerable discharge of synovia was discovered, and, by pressure, it freely flowed from the wound, on the inner side of the wrist joint; and as this escape of synovia had, for the first time, occurred, it was evident that ulceration was going on, destroying the integrity of the synovial capsule, which there was no reason to suppose had been wounded by the accident. The patient's powers being diminished, and his irritability proportionally increased, he was ordered the following mixture:—

Ammon. Carbon. gr. viij. Sodæ Carb. ℈i. Liq. Opii sedat. m. vi. Aquæ ʒ iss. m. ft. Haustus, addit. Succi Limonis recentis ʒ ss. dum efferv. sum. quartâ quâque horâ.

Hydr. Submur. gr. iss. Opii gr. ss. ft. Pil. h. s. s.

"10. He has had a very restless night, attended with occasional delirium: and in the evening, as he had become more anxious, an additional grain of opium was administered; notwithstanding which, however, he became so intractable in the night, that Mr. Stocker and Mr. Thompson were called up to him, and a further dose of opium was administered. Mr. Cooper, when he saw him next morning, explained to him the dangerous position in which he was placed, and recommended him immediately to submit to the loss of his arm; but to this he could not bring his mind to consent, notwithstanding the repeated declarations of Mr. Cooper of the danger he incurred in the refusal. He still persisted, and the following medicines were ordered:—

Hydrarg. Submur. gr. ij. Pulv. Jacob. ver. gr. iij. Pulv. Opii gr. i. statim.—Liq. Ammon. Acet. ʒ ss. Mist. Camph. ʒ iss. tertiâ vel quartâ quâque horâ.

"He was allowed to have eight ounces of wine daily.

"From this time his constitution somewhat improved; but the discharge from the arm, with the swelling, increased; and a diffused inflammation extended as high as the elbow.

"On the 15th, ulceration laid bare the wrist-joint; and Mr. Cooper, on his daily visit, urged the man to submit to amputation; and he now readily consented; although it was pointed out to him, that, from the extended inflammation, it would now be necessary to sacrifice the elbow-joint.

"The amputation was performed, by circular incisions, at about two o'clock; the stump was dressed in the theatre; and the patient put to bed; where he had not remained more than an hour, before so much blood escaped from the dressing, as to lead to the necessity of removing them, to secure the bleeding vessels, which, although proving to be only muscular branches, still required ligatures. Mr. Thompson, having satisfied his own mind that every bleeding vessel was secured, re-dressed the stump; and ordered him a pill of calomel and opium, and gave him wine, as he was faint from the pain and fatigue he had undergone.

"16. It was remarkable to observe the improved aspect of his countenance; which, from having the expression of great anxiety and distress, was now calm and cheerful; pourtraying, in the most striking manner, how rapidly the constitution improves upon the removal of a local cause of irritation: but as there was still some little excitement, evinced by quickness of pulse

and heat of skin, he was ordered to be kept low, and a draught composed of

Liq. Ammon. Acet. ℥iij. Mist. Camphoræ ℥i.

was given him, and ordered to be repeated as occasion might require.

"To detail the daily progress, from this period up to the present, would be but to reiterate progressive improvements; for not a single unfavourable symptom has interrupted his convalescence. The stump is looking perfectly healthy; and although no part of it has united by the adhesive process, which indeed could not have been expected where so much protracted suffering had diminished constitutional power, still the granulations are so healthy and exuberant as to form a perfect protection to the extremity of the bone.

"*Examination of the Amputated Limb.*—An extensive ulceration at the wrist-joint, of more than two inches in length, admitted the protrusion of the styloid process of the ulna, as well as of the fractured shaft of the radius, the inferior fractured portion of which was broken in various directions, the principal fissure extending into the joint; but indeed the appearance of the inferior extremity of the radius may be better expressed by the term crushed, than broken. A large abscess had formed beneath the flexor tendons in the hand; and an extensive suppuration beneath the extensor communis digitorum separated the periosteum for nearly two inches from the ulna, between the insertion of the anconeus and the origin of the extensor primi internodii pollicis; which muscles, with a part of the extensor communis digitorum, were, in a great measure, destroyed. The ulnar artery, and its accompanying veins, were torn through; but the ulnar nerve had escaped. A similar result is mentioned in Case 2: and it frequently happens, that, in wounds produced by laceration or contusion, when arteries and veins are rent asunder, the nerves, in such cases, escape, although exposed to the same violence. Is this to be attributed to the greater elasticity of the nerves, or to a degree of strength with which they are endowed beyond that of the vessels?

"*Remarks.*—I have detailed these three cases of complicated fracture; since they offer considerable practical interest, as connected with a difficult point of consideration—when it may be right to attempt to save a limb; and when the limb is to be sacrificed, for the more important object of the preservation of life. In the history of these three cases, it will be seen, that, in that of P. L. (Case 1.), notwithstanding the laceration of the soft parts, and the complicated injuries she had sustained, still her powers of constitution and equable temperament induced me to make an attempt to save a limb, which, under the same injuries in another individual, might have been unjustifiable.

"In the second case, viz. that of S. K. (Case 2.) it is true that the local injury was more severe, and, in itself, would have been sufficient to have precluded the possibility of saving the limb: but even had the fracture been less severe, the broken-down state of his constitution would have been a sufficient reason to diminish, as much as possible, a call upon powers which were so little capable of sustaining a protracted process of reparation. In this case, there was no doubt as to the propriety of the immediate removal of the injured limb: but sometimes it is a most difficult point to determine whether a limb should be amputated or not; and although it may happen, that a patient, from the dread of an operation, refuses to comply with the surgeon's advice, and to submit to the loss of an injured member, and afterwards impugns his surgeon because the limb is restored to use; still the converse is so often the case, that a surgeon must be very careful that such an incident coming under his knowledge, or perhaps happening in his own practice, does not ever after urge him too strenuously to the attempt to preserve a limb at the risk of life. It is to be remembered, also, that vacillating upon this point only for a few hours may lead to the destruction of the patient; for an operation, which might have been performed with safety at one moment, may, in a very short period of time, be impracticable, from the altered condition of the patient.

"In the third case, viz. that of T. B., the injury was itself very severe, being a dislocation of the wrist, as well as a fracture of the radius, a complication which rarely occurs; and the ulnar artery was also torn through, which is generally considered a circumstance leading to the necessity of amputation; but it should be remembered that the free anastomoses of the vessels of the hand places this region of the upper extremity under the most favourable circumstances for reparation, and that therefore the laceration of one of its principal trunks is not of the same importance as in other parts of the body: even the foot does not offer an analogous condition of circulation; for here the posterior tibial artery performs so much more important a duty than the anterior, that its division is infinitely more serious than when either the ulnar or radial arteries are lacerated, either of which are equally capable of sustaining the vitality of the hand. The youth of this patient, also gave me fair hopes of the recovery of his limb; but, from the great weight which produced the injury, the contusion was so violent, as to lead to the destruction of the parts beyond the power of any constitution to repair; as is shewn by the description of the dissection of the amputated limb."

FRENCH HOSPITAL REPORTS.

Intense Pleuro-pneumonia—Negative Results of Auscultation and Percussion—Sanguine Emissions, and Large Doses of Tartar Emetic.

A WOMAN was admitted under the care of M. Chomel, presenting the following symptoms: the face red and excited; respiration hurried, 50 in a minute, and accompanied by a râle perceptible at some distance; pain in the right side of the chest: expectoration of a viscid matter which two or three times presented a reddish colour; an intense degree of fever.

From this group of symptoms, there was no doubt of the existence of simultaneous inflammation of the lungs and pleura.

Nevertheless, on examining the thoracic parietes with the ear alone, or even with the stethoscope, neither crepitation nor bronchial râle could be perceived. No sound except the mucous râle of simple catarrh was present. Percussion afforded the same negative signs.

The disease was of three days' duration, and had commenced with a rigor, a pain in the right side, and a cough. These three symptoms occurred simultaneously, according to the account of the patient.

Orthopnea, pain in the side, expectoration of sanguineous sputa and fever, are sufficient symptoms to characterize pleuro-pneumonia; the absence of the stethoscopic signs could not affect the diagnosis. Bleeding from the arm and the application of leeches had been practised before her admission into the hospital. On her arrival the bleeding was repeated. These means not having produced any perceptible relief, tartar emetic was ordered in the dose of six grains in six ounces of an aromatic potion, of which two spoonsful were to be taken every second hour. The medicine was to be omitted if vomiting supervened, or if the alvine evacuations became too abundant. There was one circumstance in the case of this young girl, that seemed to contra-indicate the use of tartar emetic, which was a suspected pregnancy. The catamenia had ceased for about three months; there was a tumour perceptible in the hypogastrium, that appeared to be situated in the uterus. The dangerous state of the patient from the pleuro-pneumonia which threatened her life, prevented an examination; but even in cases where pregnancy is apparent, M. Chomel does not hesitate to prescribe tartar emetic. Many women during the entire period of gestation are tormented by obstinate vomiting, without its causing abortion. Emetics ought not to cause more unfavourable results. Besides the life of this patient was endangered by severe inflammation of the lungs, and something should be done. Bleeding is contra-indicated by the weakness of the pulse; blistering is of little avail at such an advanced period of the disease; recourse should undoubtedly be had to the method which has been so frequently successful.—*Gaz. des Hop.*

Pleuro-pneumonia of the Left Lung—Stethoscopic Signs confined to the Armpit—Articular Rheumatism.

In a similar case in the same hospital the man presented all the usual signs of inflammation of the left lung. Commencing rigors, intense febrile state, pain in the left side, cough, expectoration of viscid bloody sputa; inspirations 32, pulse 80. During the lapse of two days, the results of auscultation and percussion were completely negative: but the third day, on applying the stethoscope in the armpit, crepitation was clearly audible, and on the other sound that M. Chomel designated bruit de taffetas. Though the symptoms of pneumonia are not abated, pain and swelling of both knees have supervened; he has also had intense cephalagia. He has been twice bled already, and the vein is ordered to be again opened to day.

Rheumatism of the Chest and Abdomen.

A young man aged 20 years, a type-founder, in a very warm workshop, and frequently exposed to transitions from heat to cold, not having ever suffered from rheumatismal affections, about a month since felt some flying pains in the loins and lower extremities.

In the night of the 12th or 13th of February last, he was suddenly seized with severe pain in the thoracic parietes, which were most intense towards the point of the attachment of the diaphragm; he had at the same time great dyspnœa.

He came the next morning to the Hôtel Dieu; leeches were immediately applied to the painful part, and sinapisms to the lower extremities. The pain soon ceased, and at the end of two days the man was able to return to his employment.

At the end of six days the disease reappeared. The same remedies were made use of, and relief was speedily obtained.

The next day, the pain, which had left the thorax, all at once seized the abdominal parietes. It is impossible in this case to mistake the rheumatismal nature of the disease; if there was any donbt, the change of the affection, which quitting the muscles of the chest attacked those of the abdomen, would be sufficient to remove all uncertainty.

Tuberculous Peritonitis—Death from Intestinal Perforation.

A young *pharmacien* was admitted under the care of M. Chomel, who at the time of his entrance, presented considerable enlargement of the abdomen, with resonance of the superior, and heavy sound of the inferior part; there was at the same time obtuse fluctuation, pain on pressure, repeated vomit-

ing of greenish matter, smallness and acceleration of the pulse. There were few motions; succussion of the abdomen practised according to the method of Hippocrates discovered a rumbling noise in this cavity.

His death speedily occurred, and on opening the body, in the upper part of the abdomen there were found several old adhesions between the parietal and intestinal folds of the peritoneum. Under this membrane, there existed thousands of tubercles, of a dull white colour, and in a crude state. Some of them were also perceptible in the old false membrane that covered the free surface of the peritoneum. There was also, in the lower part of the abdomen, some liquid mingled with stercoral matter, shewing there was a perforation of the intestine.

The perforation, which was of an irregularly round form, was from two to three lines in diameter; it was situated on the surface of an ulcer caused by a tubercle. In examining the intestinal canal, a stricture of the bowels was discovered. It was situated at the top of an adhesion of two intestinal arches, one of which formed an acute angle; this explained the rarity of the stools and the accumulation of gas in that portion of the intestinal canal situated above the stricture. The stomach was of the usual size, and contained a mixture of gas and liquid; it was in this cavity that very probably the rumbling noise heard on succussion occurred.

Although during life, the existence of pulmonary tubercles could not be discovered either by auscultation or percussion, the lungs were examined to try if they contained any tubercles. A considerable number were found to exist at the top of the lungs, situated principally under the pleura. This observation confirms the rule of M. Louis, that whenever tubercles exist in the abdominal cavity, they will also be found in the thorax. Tuberculous peritonitis is, according to this rule, an indication of pulmonary consumption.—*Gaz des Hop.*

The London Medical
AND
Surgical Journal.
Saturday, April 9th, 1836.

ABUSES IN DISPENSARIES.

In our last number we proved the jobbing of certain dispensary and hospital governors, and their tyranny over the medical officers connected with these institutions. The largest proportion of governors act in accordance with charity and propriety, the smallest by far are the self-interested mis-rulers. They expect that the physicians or surgeons will visit directly any patient they recommend, be it necessary or be it not, or they will complain to the committee. Well, the officer, repairs forthwith a mile or two to the dying patient's abode, asks to see the sick person, finds him well able to attend at the dispensary, or perhaps learns that he is gone to see a friend five miles off; or it may happen that the said patient is hypochondriacal and cannot really state where he has pain, or what is the matter. But some Lady Bountiful, or some other charitable person, has ordered the individual to be visited at home, to afford him consolation, &c. It even sometimes occurs that the dispensary medical officer is called out of bed, and at a most inclement hour, to visit a pauper who is free from any serious disease.

He is always liable to be disturbed at any time, from evening until midnight, and his house besieged at all hours by his dispensary patients. Notwithstanding these and many similar annoyances, complaints are constantly made for neglect of duty, by governors, and too often in a coarse, ungentlemanlike manner. It is but justice to state, that in many of these institutions the medical officers are treated with proper consideration, but this is the exception to the general rule. In some of the London hospitals it is ordered by the governors, that no prescription should be made up unless written by the physician or surgeon; so that he is deprived of the privilege of having a clinical clerk, which is allowed in most similar institutions. He is also required to enter his name in a book, and the exact time of his visit, to enforce his regular attendance. In fine, he is subjected to the most insulting treatment by men his inferiors in education, mental capacity, and standing in society. He is only properly estimated by those whose minds are enlarged and cultivated.

The profession have to blame themselves for this state of things.

They think it most essential to be attached to public charities; they occasionally spend five hundred or a thousand pounds in making governors; they canvass the old subscribers; they contest elections, and all for the troublesome and unpleasant office of physician or surgeon, under the control of the twenty masters who constitute the committee or board of management. But it is supposed that practice will speedily accrue from such appointment. This is true to a certain extent, provided a physician or surgeon is a judicious and successful practitioner; but how many are there who never derive any benefit from their connections with public institutions. It is true, however, that others rapidly acquire fame and eminence, more especially when officers of hospitals.

But few will deny that the whole system of our public charities requires to be re-modelled by the legislature, and suited to the spirit of the times. We trust that the medical reform acts will better the condition of our profession in relation to such establishments. However long this may be delayed, it must accord with the march of liberality, characteristic of modern improvement.

FREE HOSPITAL, GREVILLE STREET.

A QUARTERLY meeting of the remaining governors of this institution was held on Tuesday evening. A police officer was placed at the door to prevent those governors from entering the room, who had, in the opinion of the committee, forfeited their privileges as governors, in consequence of their having signed a document, stating that they had withdrawn themselves from the Free Hospital, on account of the mismanagement and jobbing of the funds of the charity. "At this time the only person in was Mr. Selson, and he was voted to the chair as soon as Mr. Marsden and five or six other persons came in."

Mr. Courtenay argued against the conduct of the committee, as delegates, in excluding their constituents, but he was over-ruled. Some new regulations were adopted, but no new medical officers offered their services.

We congratulate the charitable governors on calling in the aid of the police to enforce their philanthropic and laudable exertions. It does them great credit, and affords unanswerable evidence of the purity of their intentions.

SKETCHES OF THE MEDICAL PROFESSION IN PARIS.

NO. V.—M. RICHERAND (*concluded*).

IT was in his *Nosography* that M. Richerand was the first to establish a division of diseases into three classes—*physical*, *organic*, and *vital*. This division has been much admired; but it is not completely satisfactory; and is far from accommodating itself to all the details of pathology. The author himself does not put it forth as perfect, but only as less arbitrary than the divisions of many authors; and here he is right. The classification employed by him in his Nosography, is preferable to any which had been adopted previously. He studies successively the maladies in each system, and points out the lesions, whether physical, vital, or organic, to which every organ is subject.

I have said, I believe, that M. Richerand sometimes betrays great brevity in his judgments, and a precipitation which exposes him to numerous errors of fact, and to contradictions which it were advisable he should avoid. Independently of these mental defects, M. Richerand appears to be of a susceptible and passionate character. This alone enables us to understand how it is he praises to-day what he despised yesterday; and proscribes now what he before admired. He cannot sufficiently separate things from men; and he too often forgets that anger is a bad counsellor. Examples of mistakes and contradictions are not wanting in his Nosography; but I shall content myself with specifying a few, when I come to speak of the History of the Progress of Surgery; a work where the author has accumulated them in abundance.

After all these reflections, I think that M. Richerand has scarcely done more for surgery than for physiology. In both these branches of medicine, he has composed treatises for the use of those who are commencing the study of the science; but in which the medical practitioner does not find any valuable directions.

If I have hitherto omitted to speak of the Surgeon-in-chief to the Hospital of St. Louis, with respect to surgical skill, it is because my information has taught me nothing on the subject. Nobody doubts that M. Richerand, in his long practice, has acquired suf-

ficient acquaintance with instruments, and the customary methods of procedure, to execute properly the ordinary operations of surgery. There is a certain degree of dexterity at which all men may arrive, whose situation impels them to exercise their hand, and to repeat the same manipulations frequently. This acquisition is much less difficult than is generally believed. Nothing is more common than passable operations; for in two months a student may, on the dead body, disarticulate an arm like M. Lisfranc, and reach the bladder as quickly as M. Roux. It is not manual dexterity that is wanting in general, but that sang-froid which renders the hand sure, and the mind free; and the surgical tact which is never at a loss, however unexpected may be the circumstances which arise. Notwithstanding his favourable position, M. Richerand cannot, I believe, pretend in any degree to rival as an operator the masters of the art; as Messrs. Dupuytren, Roux, Delpech, Lallemand, and many others.

In the absence of surgical genius, M. Richerand has audacity, or rather temerity. He never recoils from the most hazardous operations. He made a great noise some years ago, with his operation of the section of the ribs, and a portion of the cancerous lung. It was a great deal spoken of in the medical journals, and their opinion was divided. The majority of the critics, nevertheless, pronounced against the attempt. The patient got over the operation, but died a little while afterwards, of the reproduction of the cancer. However M. Richerand may have been reproached on the subject, it cannot in justice be denied that the operation succeeded: and that if the disease had not been kept up by so formidable an internal cause, the cure, according to all appearances, would have been complete and durable. This is, pretty nearly all of a remarkable kind that M. Richerand has effected in practical surgery; and it is not even certain that the honour of this invention belongs to him.

This is the foundation on which rests the fame of M. Richerand, as a physiologist and a surgeon. If the preceding remarks are just, the reader ought by this time to be able to form a tolerably exact idea of the professor. The examination of his last work, the History of the Recent Progress of Surgery, will exhibit him under the next point of view, of an historian and critic.

This history, which was published in 1825, created a great sensation; not that it was remarkable in a literary point of view, but from causes altogether different. The medical public, already familiarized with the writings of this professor, expected to find in it only one kind of merit—literary execution; and the defect so common in the writers of contemporaneous history—partiality. For once the public was deceived. It did not find the merit; it found only the defect. The latter it is true was very complete, very characteristic, very proper, in short to furnish a mode for the occasion. Thus M. Richerand, thoug he disappointed his readers in one respect indemnified them liberally in another. He doe not appear even seriously to have intended t write a History. That would be to attribut to him more of inexperience and want of skill than he can be supposed to be fairly charge able with, on seeing him succeed so ill. A writer so well practised as he, could not b quite so ignorant of the fundamental rules o an historical composition. We must con clude rather that he has acted from design and that it is with a full consciousness he ha sinned, (according to the language of th church), in thought, by action, and by omis sion, as more able men than I have demon strated. Thus he sins—and that is th right word; for to hate our neighbour, is sin in the sight of God and man; he sins, say, in *action*, when he attributes to one sur geon what belongs to another; as in th case of Desault and D'Anel, because the were Frenchmen; and with respect t Messrs. Roux, Dupuytren, Sanson, &c because they are living. He sins by *omissio* when, describing a new mode of proceedin he conceals the name of the inventor; an when he passes over in silence a host o works which do honour to our country, an which he ought to know in his quality of Se cretary to the Section of Surgery. Lastly he sins in *thought* from one end of his boo to the other, by the ironical tone of hi praises, the little justice in his decisions, an the blameable intention of his concealment

It is difficult to speak coolly of such work. I can well understand how man critics have allowed themselves to be trans ported by indignation. Happily among s many things that are blameable, there ar some that are ridiculous. I will cite a fe examples for the consolation of his reade and my own.

Among the number is his great admiratio of England; a country which M. Richeran loves above all others—probably because th Edinburgh Review has spoken of his fa mous operation on the ribs, under the titl of "Richerand's operation." It is to th passion that the admirers of sentimental pa thos and academic enthusiasm are indebte for the following magnificent apostroph so happily suggested by the treatment hydrocele by injection. "I salute the classic land of liberty, the sciences, and ph losophy; the country of Harvey, and Lock and Newton! Thou, who of old, in th midst of Europe, prostrated before the a solute will and the good pleasure of its so vereigns, didst first present the imposin spectacle of a sworn compact between th monarch and his people; and who, fro that happy epoch, placed at the head o civilization, hast preceded all other countrie

in the career of improvement, and in all the tracks which conduct to the progressive amelioration of our species! Often injured by servile tongues and venal pens, receive with favour the homage of a free and disinterested man!" Truly, we have here a real Ciceronean period, worthy of all the favour of the English! So also is the long note, in which the author explains and develops his motives. It is in this precious commentary on so precious a text, we may learn that the love of our country is nothing but odious egotism, and the passion of a savage! It is there that the Chevalier Richerand (odious profanation) couples with the great name of Napoleon, the epithets "*sycophant*" and "*miserable!*" Yes, he has written it! Read it at page 322, where the truth, the author says, has been scrupulously sought, and courageously proclaimed. Mark, especially the *courage*, and turn again to the fable of the sick lion. It is one of La Fontaine's best.

Again, let us observe the complacency with which the author is perpetually bringing himself on the scene; putting us into the confidence of his secret emotions; speaking to us continually of his profound conviction; telling us in a lofty tone (for fear we should mistake) that he is impartial, the friend of truth, a straight-forward unsophisticated man, talking to us, with befitting gravity, of his new operation for the cure of varix, an operation which is neither new nor advisable; for the fractures of the humerus, an invention known from the time of Hippocrates; for the removal of cancers of the inferior lip, for which he ingeniously substitutes scissors curved laterally for an ordinary bistoury; and lastly, detailing in ten pages, the history of a resection of the ribs, an operation which succeeded and did not succeed; invented by the author (according to the account of the book), but in reality practised twenty years ago by Percy.

M. Richerand has so much universality of mind, and such confidence in the charms of his diction, that he has contrived in his notes to disembarrass himself from the rules of a regular composition, and to discourse *en passant* of all sorts of subjects. He has put there everything he could find in his portfolio; historical notices; funeral orations; introductory discourses; philosophical, literary, and political digressions; and diatribes against his colleagues. He there passes "from grave to gay, from lively to severe," and does not flag in his eloquence. Unfortunately he succeeds but ill in the difficult task of making a paradox with spirit, and of rambling with grace. It is in vain that M. Richerand refers us to the example of Bayle; who, he says, was a great man, and not a visionary like Descartes and Mallebranche. The mischief is not in imitating Bayle; but in doing it clumsily. I will also take the liberty of informing the author that Descartes' was one of the most powerful minds that ever existed, and that Mallebranche has written books on metaphysics, little read by surgeons.

All these are nothing but ridiculous things, which we ought to take kindly from M. Richerand; since the smile they provoke tempers the more serious sentiment to which the hostility of his criticism gives birth. I use the word *hostility*, because the reality exists. The polished terms in which he envelops his attacks are only, it is said, sheer irony. I may add that this irony is of a particular character. In general these terms are only concessions commanded by the rules of society, which do not permit such things to be said plainly; but with M. Richerand, they add to the force and the reality of his intentions. They convey his idea better than any set expression; and that idea is this: "I do not esteem your talents. I scarcely like your person. I much wish your reputation was not so good; and I find an inexpressible pleasure in telling you so." Some of M. Richerand's criticisms are well founded; but the bitterness with which he expresses them, sets his readers against him.

I will cite only one example of those rambles into which passion sometimes betrays our historian. M. Dupuytren, however M. Richerand may regret it, is a surgeon of the first order. No one else, perhaps, in France, can be compared to him for operative ability and practical knowledge. His renown is European. Men competent to judge are pretty well agreed on that subject. It is said that M. Dupuytren is not beloved by every body; and I believe it. The contrary would astonish me much more; but I know that, as a matter of prudence, and for the sake of their own interest, his enemies had better be silent. They ought to see, if they are men of sense, that M. Dupuytren, from his position and superiority, cannot be attacked; and should be content to suffer in silence. To fight against power, from a feeling of a good right, is a piece of temerity; to contend out of spite is ridiculous. M. Richerand, however, does not fear to run the risk. He has apparently particular reason for finding fault with everything M. Dupuytren does; and as the name of the latter is constantly occurring in the history of French surgery, occasions of speaking of him are not wanting. M. Richerand embraces them with great delight, and indulges himself by giving free vent to his satisfaction. According to him, that surgeon has invented nothing—has improved nothing. If he has had some influence on the science, it has been more injurious than useful; and his works have made less progress than retrogression. All these remarks and insinuations are so destitute of foundation, that their refutation would be superfluous. I do not think that even M. Richerand himself imagines any one will put faith in them. It seems as if he

found fault for the pleasure of finding it; and not for the sake of convincing any body. I repeat, he shews great want of tact in disputing M. Dupuytren's talent. That is not his weak side. I restrain myself on this subject, for fear of overpassing the limits which I have imposed on myself. I shall only observe in conclusion, that among the faults of M. Dupuytren, the historian has forgotten to mention the greatest—that of being surgeon-in-chief to the Hôtel Dieu. M. Richerand is so prejudiced against the surgeons of that hospital, that he cannot refrain from censuring Desault for having been one, thirty years ago; and it is on that account no doubt, that, denying his genius, which once he admired, he now places him among those who have most retarded the progress of surgery.

To sum up, in a few words, the judgment which ought to be pronounced on the History of the Recent Progress of Surgery, I would say, that the history is incomplete; inexact; unfaithful with respect to facts; partial and passionate with respect to its criticism; and, with respect to its literary merits, pedantic, bombastic, and unworthy of its author.

Although M. Richerand, in venting his ill-humour, has spared no one; and although he is not in general prodigal of his praises (unless in the case of himself, and of his English and Scotch in the Edinburgh Review) I wish, with all my heart, I had less to find fault with in his writings. I could even wish, if it were possible, to recommend him as a great professor. But that would be to belie the truth. His lectures on physiology were formerly well attended, and were distinguished, like his books, by their order and perspicuity. Those which he now gives on operations, make us regret those of his predecessor Lassus. They are neither so learned nor so well delivered. M. Richerand has a very laborious pronunciation, which the least agitation renders still more distressing. Whenever he is a little animated, his speech becomes embarrassed; from which a cramp and confinement result, which deprive his discourses of a great part of their beauty. On the whole, he is one of those professors of which there are so many. It is even singular that he should be considered one of the best of those who, in the year 1828, found themselves placed in the chairs of Pinel, Labaher, Dubois, &c.

Besides the works of which I have endeavoured, as well as possible, to state the merits, M. Richerand has published a volume in octavo, upon Popular Errors relative to Medicine (1803); the Lectures of Professor Boyer, on Disease of the Bones (1812); several academic discourses, pamphlets, and a great number of articles in different literary and scientific journals. He is one of the editors of the Dictionnaire des Sciences Medicales.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 26th, 1836.

DR. ADDISON, PRESIDENT.

Sulphate of Quinine and Bark in substance—Origin of Worms in the Human Body.

Dr. Ritchie, Professor of Natural Philosophy in the University of London, was elected an honorary member of the Society.

Dr. R. D. Thomson exhibited some specimens of vegetable extracts, prepared so as to retain their virtues a considerable time. In speaking of the action of medicines, Dr. T. observed that he had found that bark in substance was a much more effectual remedy in intermittents in China, than the sulphate of quinine.

Dr. Webster had long maintained that opinion, and was glad that he was borne out by the experience of Dr. Thomson. He (Dr. W.) had found small doses of the bark in powder always more effective in obstinate intermittents than the sulphate of quinine.

Dr. Fergusson had found the sulphate of quinine always more effective in the fevers of the West Indies than bark in substance. it was probable, that where the sulphate had been found unsuccessful by some practitioners, that it was adulterated.

Dr. Peregrine was now called on for his paper on

The Origin of Worms in the Human Body.

After giving a sketch of the various theories that had been advanced in explanation of the subject—the author considered that only three of them were at all tenable, viz. 1. That the worm is taken in with the food. 2. That it had its origin in an ovum transmitted from generation to generation. 3. That it was formed in, and generated by the body. The first too, the learned author adduced a long course of arguments to prove incorrect. He considered the most serious stumbling block to the last theory, was the idea of horror that was attached to the belief that man could generate within himself without having any control over such generation. Now, he thought this idea was easily overcome. What was life? Why, nothing a term employed to define certain phenomena peculiar to organization. Life consisted, he argued, of two principles—certain organs having an aptitude for life, which required some stimulus or external agent to bring it into life. Now, the worms were a mere secretion, which possessed this aptitude for life—and they did not live until they were placed in circumstances favourable for the development of that life.

The generality of the Society seemed to consider that the "omnia ab ovo" was the true doctrine, and several expressed themselves to that effect.

Mr. Costello will, on the next evening

read a paper on Catheterism, and exhibit a new instrument to facilitate such operation.

Saturday April 2, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Catheterism—New Instrument.

Mr. Costello, according to notice given at the last meeting, read his paper on catheterism, in which he entered into an extensive description of the anatomical structure and peculiarities of the urethra, the various modes and instruments employed for the purpose of catheterism, and at the conclusion of a very long and elaborate paper, described a new catheter. We give his own words on the subject.

"I now come to the description of a new form of catheter, the advantages of which, as adapted to the depressions and eminences of the urethra, will be obvious to any person who has previously taken the trouble of making himself acquainted with the anatomical configuration of the canal, upon which the instrument itself is closely modelled.

"I have already said, that, if the direction of the urethra were straight, and its diameter equal through its entire length, that our rules for passing instruments into the bladder might be expressed in a single sentence, viz. to take an instrument suited to the calibre of the canal, and direct it in a straight line from its external to its internal orifice. But the canal of the urethra is not straight, neither is its diameter equal. The problem to be solved, therefore, presents itself thus: The canal of the urethra being curved, and its diameter being normally unequal, in consequence of elevations and depressions of its main surface, and circular narrowings, which is the best form of instrument to be employed, with a view to the effecting an easy and uninterrupted passage through the tube?

"The catheters already in use, being commonly of equal diameter, and rounded, or oval at the point, present the same unvarying relation to every point of the canal, whether it be narrowed or dilated; and hence the obstacles (natural obstacles as they are termed) that oppose the progress of the instrument upon the slightest misdirection of it in those points of the canal where its diameter varies abruptly. I have had a fair share of experience on this subject, and have thought much upon it, and no doubt now remains in my mind of our possessing the power of obviating the difficulties of catheterism, as arising from these obstacles, by the form of the instrument, which I now submit to the profession, and which has been for some time subjected to the test of daily use.

"In speaking formerly of the choice of a catheter, I dwelt much on the importance of its bulk; the largest, when not disproportioned to the calibre of the canal, being in general the best. The reason of the preference is obvious, the large instrument, according as it advances in the urethra, and unfolds the membrane, forms a small vacuum before its bec, and thus its route is opened and prepared for it, in a manner which does not obtain when a small instrument is employed; for in the latter the folds of the canal are in close contact with its point.

"The qualities that seem to me desirable in the catheter, are the following:—

"First, the volume, or size, should be full in proportion to the calibre of the urethra. Secondly, its shape should be such that the small vacuum in advance of the bulk of the catheter, and produced by it, shall be occupied by a small, guiding prolongation of its point, inclined to the upper surface of the canal. Thirdly, on its under surface, its shape, between the tip of the small prolongation, and the part at which its full diameter is restored, shall be such as to occupy or accommodate itself to the depressions, as it passes them, and to depress and flatten the eminences on the under surface of the urethra, as it passes over them. Fourthly, that the eyes shall not be too large, and that they shall be so placed as not to present any obstacle to the progress of the sound, either by being plugged or stopped up by the lining membrane of the urethra.

"It will be evident, on examining the catheter I now propose, that its form fulfils all the conditions required in relation to the canal in its passage down to the bladder. Its form, in all respects, is the same as that of an ordinary catheter, except from the eyes to the termination of the bec; and in this portion its shape is entirely different from that of the instrument in general use. The whole of this portion consists of three parts, a neck, head, and beak, and bears a strong resemblance to the neck, head, and bill of a swan.

"When a catheter of this shape is passed into the urethra, the bulk of the head is sufficient to unfold the membrane in advance of it; the bill occupies the vacant space thus made, and continues to move along smoothly, in contact with the upper surface of the canal, from which its extreme point is so fashioned as to incline slightly towards the axis of the urethra. When it arrives at the bulb, the bulk of the head occupies the depression, while the guide, or bill, is necessarily directed into the middle of the isthmus, or commencement of the fixed portion of the canal; the pavilion being now gently lowered, the bulk of the head ascends out of

the depression of the bulb, and favoured by the inclined plane in which the head and bill are blended together, glides imperceptibly over the sill formed by the under edge of the triangular ligaments. It moves on freely through the muscular portion till it reaches the prostate; here again the guide, keeping close by the upper surface, overtops the eminence of the vero-montanum, and depressing it, leads the head of the catheter gently over it. The bill then enters the bladder at the upper part of its orifice, making way for the head of the catheter, as it had done throughout the whole of its passage. To resume, the chief and valuable peculiarity of this catheter consists in the fidelity with which its upper surface keeps to the upper surface of the urethra, while the bulk of the body, tapering upwards to the end of the bill, successively unfolds the depressions, and climbs upon the eminences, which it meets in its course along the inferior surface of the canal."

LONDON MEDICAL SOCIETY.

Monday, April 4th, 1836.

DR. WHITING, PRESIDENT.

Ulceration of the Stomach.

We stated in our report of the Society last week, that in the case of the young girl who died from ulceration of the stomach, a chemist had asserted that he had detected some oxalic acid in the fluid contained in the abdomen.

Mr. Crisp stated this evening that the contents of the stomach and abdomen had been since analysed by Mr. Phillips, of Guy's Hospital; and he reported that they contained a considerable quantity of oxalic acid. The Jury, nevertheless, had returned a verdict of "Died by the visitation of God."

Mr. Jones thought that the presence of the oxalic acid was no proof that chronic inflammation, with a tendency to ulceration, had not been going on for some time; and that the stimulus of the poison had hastened such process. He believed it was not always that when poison was supposed to be detected it was really there; there were so many circumstances which might make the tests of chemists fallacious.

Blade of Grass in the Abdomen.

Mr. Meryon related the case of a child, fifteen months old, who in May last was seized with severe convulsions, followed by irritation, which prevented her from sleeping; her breath became exceedingly offensive; she had a very severe cough, which was attended with expectoration of a very disagreeable fluid. About five weeks after, an abscess formed on the right side between the two lowest ribs, which was opened by a surgeon, and a piece of lint placed in the wound, from which a large quantity of matter, like that expectorated, came out; and on one of the removals of the lint, a blade of grass came away with it. The child was for the first time, since the convulsive attack, able to get a good night's rest, and to lay on the right side. The child was cutting its teeth at the first occurrence of the convulsion, which was attributed to that. It appeared that the child had swallowed the grass about a month previous to the first occurrence of the symptoms.

Effects of the Acetate of Lead.

Some conversation took place respecting the effect of lead on the sentient nerves. Mr. Staples stated a case in which amaurosis occurred in an intemperate man, aged 30. After epistaxis, for which he was bled, and had 20 grains of acetate of lead in 48 hours, with five grains of opium, and afterwards had taken ten minims of tincture of digitalis every four hours for two days, he was attacked with amaurosis and subsequently with delirium, which remained for two or three days, and was relieved by half a grain of the muriate of morphia. It was generally considered by the Society that the amaurosis was the result of delirium tremens, and not arising from the administration of the lead. No member could recollect a case in which the administration of lead had affected the sentient nerves.

Mr. Edland remarked, that when lead proved deleterious, it arose from the fact of the bowels being confined; if the bowels were confined more than twenty hours, some ill effects generally took place; lead in some instances had a remarkably debilitating effect, which rendered its administration not only uncertain, but sometimes dangerous; he had given it in a case of uterine hæmorrhage which it relieved, but left a remarkably debilitated state behind. The best remedy for these deleterious effects was unquestionably the rapid administration of the sulphate of magnesia or soda.

The President had frequently seen loss of sight in cases of delirium tremens, which he considered, had its origin in the constant excitement the capillary vessels had undergone by the stimulus of alcohol; he considered delirium tremens only a symptom of general debility. He always considered that lead acted through the blood, not on the nerves of a part. One muscle only was affected in some cases; if the lead had acted on the nerves, it is probable such would not be the case.

The President then announced that Dr. Walshman, one of the oldest members of the Society, had died last Saturday. It was eventually proposed and carried, that there shall be no meeting of the Society on Monday next, out of respect for the memory of that late celebrated physician.

Hospital Reports.

NORTH LONDON HOSPITAL.

Gastritis from Poison—Oxalic Acid.

Eliza Howden aged 22, married 4 years and has two children; brought in at one o'clock, A.M. March 21, having attempted to poison herself with oxalic acid; her husband discovered her eating it after they had retired to bed. He brought the paper containing the remainder of it; on this paper was written the name of the acid. She bought two pennyworth; there are ℥ ij and ℈ij left in the paper; she thinks she took two teaspoonsful. It burnt her mouth the instant she tasted it, and produced a violent pain in the throat, gullet, and stomach. She vomited once, and very freely, a quarter of an hour after taking it. The pain was not much relieved by the vomiting. She was brought to the hospital about half an hour after taking the poison. Her skin was then hot and her pulse was quick and bounding. She complained of great pain in the head. A considerable quantity of chalk suspended in water was administered, and she vomited freely two or three times. She was then put to bed; the pulse had become considerably slower, and weaker, and the skin cooler. 10 A.M. Has had a little sleep in the night, feels drowsy and stupified. Pain in the forehead, sight dim, giddiness, tinnitus aurium, eyes look rather injected. Complains now of soreness, but not heat of the mouth, fauces, or gullet. Burning sensation at the epigastrium, and some pungent pain occasionally, but has more pain in the umbilical and hypogastric regions—burning sensation all over the interior of the abdomen. Tenderness of the epigastrium much greater over the pylorie than cardiac orifice—tenderness also of the whole abdomen—no stools—made water once with pain and difficulty—great thirst—pulse frequent—moderate in strength—skin rather hot.

V. S. ad ℥ xvj.
Ol. Ricini ℥ vj statim.

3. P.M. Castor oil repeated as the bowels were not opened by the first dose, (evening) castor oil repeated, Hirudines xx. abdomini.

March 22nd. Bowels open, feels better, less pain—less tenderness of the abdomen. She says she had no other cause for attempting suicide than poverty. Her husband has been out of work a long time. It appears that they have been in a state of great destitution. Mr. Taylor thinks the phrenological organ of self esteem lays in her head. Her husband says she has a very high spirit, she has attempted suicide by laudanum several times.

23rd. Some tenderness at the epigastrium.

Hirudines xx. parti dolenti Lactis Oeti.

24th. Better; on the next day discharged cured.

Erysypelas—Phlegmonodes — Secondary Hæmorrhage after Amputation of the Finger.

John Holding, servant, aged 55, was admitted December 17th, 1835, under the care of Mr. Liston. Last Sunday but one, (the 6th), he inflicted a slight wound on the inner side of the first phalanx of the thumb of the left hand with a knife, when at dinner. He applied adhesive plaister. On the Monday following, the hand felt hot and stiff, and appeared red and swollen. He had recourse directly to leeches and poultices, which have been applied daily to the present time. He has lost his appetite, and complains of debility, but has had no rigor. The hand is much swollen and red, and these symptoms extend as high as the elbow. The swelling pits on pressure: the tongue is loaded with yellow streaks: pulse 108, and soft. Several incisions were made by Mr. Liston at the back of the hand, and one on the forearm, which induced a free discharge of blood.

19. Much relieved: pain and swelling diminished, and has passed a good night.

23. Going on well: water dressings to wound, with a bandage.

28. Still improving: wounds open.

January 2. An abscess opened on the scapula of the same side: limb not much improved.

30. Has continued much the same since last report: there is now considerable swelling of the hand and fingers, particularly the ring finger.

February 1. Swelling of the whole hand continues: the wound discharges a considerable quantity of fœtid matter. On probing the joint of the first phalanx of the ring finger, and metacarpal bone, Mr. Liston found it much diseased; and considering this to keep up the irritation, he determined to remove it at once, with a portion of the metacarpal bone, which was done by the lateral flap, the bone being divided with the bone forceps. A compress was applied over the palmar and dorsal surface, the incisions and the fingers bound together with a bandage.

4. A slight secondary hæmorrhage occurred to day, but was checked by an additional bandage.

7. Hæmorrhage again returned, and Mr. Liston secured two vessels.

8. The bleeding was not effectually stopped; it again came on this morning, and Mr. Liston applied additional ligatures: the wound was filled with lint, and a bandage applied to the hand and fingers.

He went on exceedingly well until March 16, on which day there was a good deal of œdema round the elbow; this however was much relieved by a fomentation. He is now rapidly improving, and his hand bids fair to be a very useful one.

DR. BLICKE ON RUPTURE OF THE UTERUS.

To the Editor of the London Medical and Surgical Journal.

Walthamstow, March 31, 1836.

SIR—I am sorry to be again under the necessity of animadverting upon your editorial remarks, but really you have made such an erroneous statement, and blended matter so foreign to the purpose, I feel it almost hopeless to keep you to the point until you have leisure to read my letters more carefully.

You first state, "Our correspondent is labouring under a mistake when he supposes that it is to be inferred from our comments we consider his remarks personal." If you will refer to the last paragraph of my letter (page 277), you will find I am simply apologising to you, for any seeming want of courtesy that some passages in that letter may appear to exhibit. The real point at issue between us is, "Can the fœtus, having escaped wholly into the abdomen through a rupture in the uterus, be reintroduced into that organ and extracted?" You say it can, and that it has been done. I say, "It cannot; and consequently all parties are deceived in saying that they have done it." Now for the verity of this position, I refer you to the discussions at the Medical Society, and my letters in Nos. 212 and 214 of your Journal, and I shall be most happy to leave this to be decided by the profession, on reading my arguments and those of the whole world against me.

The practical point, therefore, is only incidental, and when you say I throw "your numerous authorities overboard," and yet "refer to others, though few in number," to support my position, you are decidedly in error, for the very quotation proves Dr. Denman believed that the fœtus could be reintroduced into the uterus, which is what (I repeat) I deny to be possible; and I have admitted, over and over again, all authority is against me on this point, and cannot therefore understand your object in asserting it again and again; and the other authorities are simply referred to by me to prevent any impressions being made on the reader calculated to divert his mind from the subject in dispute between us, and dragged from me by your editorial remarks.

In your present remarks, an argument has been advanced for the first time, militating against my position. You say, "Rupture occurs after the discharge of the amniotic fluid; this is not always the case; but I cede it to you, and you argue hence that this discharge gives room for the escape of the fœtus into the abdomen. Now, in the first place, for this to be of any service to you, you must prove that the relative spaces are equal between that occupied by the fœtus and the amniotic fluid; and I do not think you will attempt this, the average quantity rarely exceeding a pint, and never more than a pint and a half, except in case of disease; but even this would not be sufficient for your purpose; and your question, "Would not the contraction of the abdominal muscles be sufficient to effect it?" furnishes me with an unanswerable argument against your physiology. It is evident you anticipate an answer to your question, in the affirmative, whilst nothing is more obvious than the reply must be in the negative. The abdominal muscles cannot render the slightest assistance to the uterus in its expulsion of the fœtus *into the abdomen*, and a moment's reflection will, I am sure, convince you of your error in this supposition. The abdominal muscles have no peristaltic action, and consequently they simply contract round the fœtus, &c., and *assist in parturition only*, when the peristaltic action of the uterus is in force, and directing the expulsion of the fœtus, *via naturali*. The argument furnished me then is this: that as the contraction of the abdominal muscles is simply that of pressing the parietes of the abdomen round the uterus, &c., it necessarily prevents that space occurring in the abdomen, which you now seem avowedly to admit as requisite to enable the uterus to expel the fœtus, and yet remain uncontracted.

Yours, &c. W. F. BLICKE.

Appeal to the Profession, for the Widow and Infant Children of the late Mr. Dobson.

ON the 10th instant, at his house, Princes Street, Westminster, in the twenty-ninth year of his age, William Dobson, Esq. M.B., C.S., lecturer on comparative anatomy at the Westminster School of Medicine, author of an Experimental Inquiry into the Structure and Functions of the Spleen.

We regret to state that Mr. Dobson has left behind him several works on anatomy which, it is probable, will ere long be given to the world under the superintendence of an eminent scientific friend.

It is our painful duty to notice, that Mr. Dobson, cut off thus early in his scientific career, was not enabled to leave behind a provision for the future wants of his wife and two children. His family are thus left destitute, and we feel convinced that this is quite sufficient to induce the medical profession and the public to come forward and to testify their respect for departed talent by subscribing towards the support of his widow and children.

Several gentlemen have subscribed already; and subscriptions will be received by C. F. Treibner, Esq. 4, Finch Lane, City; Dr. Weatherhead, Parliament Street; J. C. Hodgson, Esq., Temple Chambers, Fleet Street; and Dr. Epps, 84, Great Russel Street.

THE

London Medical and Surgical Journal.

No. 12. SATURDAY, APRIL 16. Vol. I.—(1836).

CLINICAL LECTURE
ON
CHRONIC HEPATITIS.

BY PROFESSOR THOMSON.

Delivered at the North London Hospital.

SESSION 1836.

ase of Chronic Hepatitis—Pathology of Chronic Hepatitis--Post Mortem Appearances—Cartilaginous Change of Structure of the Spleen in this instance—Treatment of Chronic Hepatitis—Irritative Fever following the administration of Mercurials—Cause of the Fatal issue in the present Case.—Case of Rheumatism, and Neuralgic Affection of the Lower Limbs—Pathology of the Neuralgic Affection—Resemblance to Hydrophobia, and to some of the effects of over-doses of Strychnia—Treatment of the Neuralgic Affection—Actual Cautery—Cupping—Dry Cupping—Tonics — Discrimination between Tone and Stimulus necessary.

ENTLEMEN—I have to speak of two cases -day ; one a case of chronic hepatitis, the ther a case of neuralgic affection. The llowing is the history of the case of chronic epatitis.

James Humblestone, aged 60, admitted nder the care of Dr. A. T. Thomson, on larch 1st ; carpenter ; has been in his youth ccustomed to drinking. About seven years go he was under Dr. Conolly for hepatitis : nce this time he has scarcely ever been ee from pain in the right side : the pain as, within the last three months, consierably increased in severity. He now omplains of pain in the right side, in the egion of the liver, extending nearly to the inal column ; it is much increased by ressure, coughing, and especially by sneezg ; also of pain in the opposite side, aparently in the situation of the spleen ; his pain is not constant ; it is also increased y pressure. He is obliged to sleep on the ght side, for if he lie on the left the pain accompanied by a dragging sensation, hich is very distressing. He has occaonally pain in the right shoulder.

The spine is curved forwards, and the chest is very much deformed, being flattened on the left, and projecting on the right side ; the liver can be felt extending nearly to the umbilical region. The complexion is sallow, and the conjunctiva yellow. The urine is natural in quantity and appearance. The bowels are open, and the fæces healthy. The pulse is 76, and full.

Applicet. seteceum part dolent.

℞. Pil. hydrargyri, gr. ij ;
Extr. taraxaci, gr. iv, ter in die sum.

Habt. magnes. sulphatis, ℥ iij om. mane.

4th. The pain in the right shoulder has increased considerably ; in other respects he is much the same.

7th. Much better ; the pain in the side and shoulder is much diminished. The sulphate of magnesia was diminished to two-drachm doses ; the pil. hydrarg. increased to three grains.

9th. The pills were omitted. His mouth is very sore indeed, and he is very copiously salivated. A gargle of the chloride of soda was ordered for the mouth.

14th. Mouth still very sore ; bowels rather confined ; to have three drachms of castor oil every morning, and two pints of milk daily.

16th. Continues very weak ; the pain in his shoulder and side is much diminished.

21st. Mouth continues very sore ; he has a very troublesome cough, and expectorates a considerable quantity of a thick mucus. A gargle of borate of soda and syrup of poppies was ordered.

23rd. Still very weak ; mouth continues sore, and he still expectorates a great deal : to have a draught, with four grains of carbonate of ammonia and an ounce and a half of decoction of bark, twice a-day.

26th. Very weak indeed ; mouth better ; expectorates considerable quanties of thick mucus ; appears to be sinking.

Died on the following day.

This, gentlemen, was evidently a case of chronic hepatitis. There could be no doubt of the nature of the affection, as far as the symptoms displayed themselves.

The term chronic hepatitis is one of a very indefinite character, and it is only in

fatal cases, when we have an opportunity of examining the real state of the organ, that we can ascertain how far it is involved in that form of disease constituting chronic hepatitis.

In general, as the disease makes its approach, it is very insidious, and very slow in its progress. The first symptoms that appear are not, in fact, connected particularly with the organ that is especially deranged; the digestive organs become depraved; flatulence, irregular state of the bowels, and diminished quantity of bile in the alvine dejections, occur: these symptoms are followed by some degree of uneasiness in the region of the liver, not often arising to actual pain; in general only some uneasiness is complained of in the right hypochondrium, and a slight pain is produced on pressure in this region, and in the epigastrium. In our patient the pain was not very severe, and occasionally it was increased and diminished again; the chief circumstance which produced the pain, was the effort when he turned on his left side; and then he complained of pain, and of a sensation of dragging in the opposite side. Notwithstanding this dragging sensation, there were no adhesions between the opposed surfaces of the peritoneum, to which this sensation is generally ascribed. There was some degree of tenderness on pressure in our patient; the countenance was sallow, the skin dry, the tongue foul, and the urine scanty and high-coloured afterwards, but at the time he entered the hospital it was tolerably natural. These symptoms were accompanied with pain in the shoulder, which left little doubt as to the diagnosis of the disease.

One very frequent accompanying symptom of the existence of chronic hepatitis, namely, the elevation of the shoulders, could not be observed in our patient, in consequence of his deformity.

The sensation of dragging, when lying on the left side, besides being connected with adhesion, is sometimes consequent upon the exterior part of the right lobe of the liver being the seat of the disease; but the post-mortem examination proved that it was not the case in this instance; indeed, the state of the organ, as seen on dissection, did not in any degree account for the pain felt by the patient. We can only account for this by supposing the existence of some affection of the hepatic nerves, which has been termed by some writers, hepatic colic, such as Andral has termed hepatalgia; but this, it must be admitted, is merely problematical.

On examination, the liver was found to be simply in a state of engorgement or congestion, that condition which is usually denominated hyperæmia; on dividing it, the flow of blood was considerable, and both the hepatic and portal system seemed involved in this state of congestion. The engorgement, however, was not so great as to obliterate the distinction between the ramifications of the capillary and biliary vessels; there was no uniform redness throughout the organ, and the vessels could be detected as in the healthy organs. The liver was considerably enlarged; the right lobe of the organ particularly was large. Perhaps it may be more correct to regard the condition of the organ as that which hypertrophy produces, or a combination of that and hyperæmia; as, besides a preternatural thickness and development of substance, there was also a preternatural quantity of blood accumulated in the vessels; the latter, indeed, was not wonderful, owing to the consolidated condition of the left lung, which must have thrown a larger quantity of blood in the hepatic organ than was its due. The induration of the liver was considerable, yet when it was cut into, the tissue of the organ was easily broken down, and the general structure throughout granular. The left lung was completely hepatized; it was one consolidated mass. The right side was quite healthy, except being in a slight degree œdematous; the quantity of blood was not more unusual than natural; this lung was enlarged, and it was a case in which nature made up for the loss of the other side. The consolidated condition of the left lung would evidently be the cause of a greater quantity of blood being thrown on the hepatic organ than natural. Diseased conditions of the spleen are not uncommon, and in this case it was strikingly affected; and I have never observed so great a change of structure without a suspicion of disease having existed in that organ. I have preserved the spleen for your examination; you see there is a considerable degree of cartilaginous change of structure, both in the peritoneal and proper coat of the viscus. The cartilaginous substance, you observe, is thick in one part of it, and extending in spots around the edges of the organ. In general, when the spleen is affected in this manner, it is not confined or limited so much to the margin of the organ as in our case; I have never seen it affect the margin of the organ so particularly as in this case, nor have I ever seen it affect the concave surface of the organ. This case is an exception; the thickest and greatest change, however, has occurred in the convex surface. Baillie remarks that the cartilaginous change of the investing membrane of the spleen, when it occurs, usually occupies the convex surface of the organ. The substance of the spleen in this case is not much diseased, and it is not the hard state of spleen which is generally associated with the cartilaginous state of the surface. The substance of the spleen is sometimes so hard, as to appear like scirrhus; one or two instances of which are mentioned by Dr. Baillie in his Morb.

Anatomy; this condition is generally, however, accompanied with enlargement; and Sauvages mentions a scirrhous spleen that weighed thirty-six pounds. The spleen is generally somewhat enlarged when this cartilaginous change of structure exists; but in our case this organ was rather smaller than it usually is. The parietes of the left ventricle of the heart were considerably thickened. The left kidney, which I did not see in consequence of being obliged to leave the post-mortem examination, was diseased; some tubercles were formed upon it, and a small cyst was found in it. It is not uncommon to find the kidneys affected in many diseases; the sympathy between these and other organs is very considerable. With regard to the

Treatment.—In all cases where chronic hepatitis is found to exist, our chief reliance is upon the action of mercurial preparations. As there was no doubt as to the disease in this case, mercurials were ordered with the view of overcoming congestion, and to stimulate the kidneys, and thus reanimate, as it were, the natural function of the organ, and by carrying on the circulation more freely through it, arrest any preternatural changes of structure.

The habit of the patient, however, was very easily and very soon affected with the mercury, and the irritative fever which was set up seems to have been the chief cause of the fatal issue of the case. It is impossible to foresee this noxious influence of mercury on the system. The quantity of the blue pill which had been taken was very small indeed when the mercurial erethismus was set up; only twelve grains were taken before our patient was affected; and the ulceration of the cheeks, tonsils, and gums, with the enlargement of the tongue, were very extensive, and the patient evidently fell a victim to the treatment which was directed to the disease. What would have been the influence of iodine in this case, it is impossible to say; but if this injurious influence of the mercurial could have been foreseen, I should have been inclined to have tried it. As it happened, the constitution of the man was not capable of withstanding this irritative fever, set up so unexpectedly by the mercury; yet experience authorizes us in saying, that the treatment adopted in our case was the best mode of proceeding in similar diseases of the liver; and it is very probable, from the result of our experience, that the disease would have been relieved, had not this irritative fever come on.

The other case, gentlemen, is that of a woman, Maria Francis, who is now in the hospital; and I mention it because it is rather a curious case, perhaps occurring more frequently than noticed by practitioners; it is very similar to the one which I have lately seen in private practice. The following is the statement of the case, simply as a case of rheumatism in the hospital case-book:—

Maria Francis, ætat 65, admitted Feb. 20, 1836; servant; never married. About ten years ago she had an attack of rheumatic fever; since which she has had flying pains about her limbs, and has not enjoyed very good health; she has been accustomed to work hard, and she has been very subject to frequent colds, sickness at the stomach, and pains in the head. At the present, she complains of acute pain from the hips to the toes, which is much increased by pressure, and diminished by any warmth; there is slight discolourment in the popliteal spaces and down the legs, which appeared rather suddenly about ten days since; the pulse is 80, and regular; the skin is very hot and dry; the tongue is much furred; the appetite is rather diminished; she is slightly thirsty; the bowels are moderately relaxed; she has some little difficulty in passing the urine, which is high-coloured.

℞. Hydrargyri submur. gr. j;
Antimonii tart. g. ¼;
Opii, gr. j, m. ft. pil. sexta quâque hora sumend.

Now, besides this account of the case, on examining her I found the degree of tenderness was so great, that even the approach of the hand to touch the legs occasioned a considerable degree of pain and uneasiness to the individual. She was afraid of any one to approach the leg; and the high degree of sensibility was such, that the weight of the bed-clothes could scarcely be borne. Not suspecting exactly the cause of this diseased state of sensibility, I was inclined to treat it as one of simple acute rheumatism. I did not order bleeding, because I thought the pulse did not warrant such a proceeding; I was inclined to diminish the sensibility of the limbs by means of calomel.

On the second day after, she was very little relieved; indeed the pulse was 120, and the pain was very acute. The pulse having risen, and reaction having taken place, she was then bled, and the blood was much buffed and cupped.

On the 20th, she was improved in a slight degree.

The dose of the tartarized antimony was increased to half a grain.

On the 29th, she was greatly improved, but the sensibility of the limbs was even greater than at first: beginning to suspect the cause of this, I made an accurate examination of the spine; there was considerable tenderness in one spot of the lower part of the spine, and I ordered her to be cupped over the sacrum.

On March 3rd, the pain was diminished; the pulse was rather more feeble, and the mouth beginning to be tender; the bowels were slightly relaxed, and the urine natural. The pain and sensibility was much relieved by the cupping. The pain is increased when

she lies in some particular situations upon the spine, probably depending upon some degree of thickening and inflammation of the meninges of the spinal cord.

On the 7th, I ordered her to be cupped again, as she had some considerable pain. The sensibility is so much diminished that she can allow the extremities to be touched. The tongue was dry and furred; the pulse was pretty good.

On the 9th, I ordered her again to be cupped, but to four ounces only. The strength of our patient did not permit me to abstract much blood, and had the blood not been cupped and buffed, I should have been contented with dry cupping, having seen beneficial effects from it in similar cases in private practice. I ordered an ounce and a half of decoction of cinchona to be taken three times a day.

On the 11th the pulse was good; the tongue white; pain less. I ordered her again to be cupped to four ounces.

On the 14th she was considerably improved; the pain was so much diminished that she could bear the limbs to be handled with impunity.

On the 18th she was improving. As she complained of weakness she was ordered a drachm of the tinctura serpentariæ to each dose of the decoction of cinchona.

On the 23rd she was still improving. She complained but of weakness, and of want of rest. I prescribed morph. mur. gr. ½, hora somni sum. in aquæ, ℥ j.

She will be able to go out in a few days. She is one of those persons who complain a great deal without a strong cause for it; there is an extreme indolence in the individual.

Now, gentlemen, this is one of those cases in which there is evidently an affection of the spinal organ, whether in the substance or in the theca I know not, but I am inclined to believe that it is in the theca of the spine; and I am more induced to believe this, from the increased sensibility of the lower limbs. In all spinal affections, where there is inflammatory action going on, there is much sensibility of surface; and I believe that the sensibility in hydrophobia depends upon the same cause. The only case of hydrophobia I have seen, in which I have been able to examine the body after death, the inflammatory appearances of the membranes of the spinal cord was most remarkable. The inflammation was extensive; and the sensibility was very great during life; it closely resembled that which occurs in cases in which over-doses of strychnia have been given. In these cases the great sensibility of the surface affords us evidence that the theca is affected, although not to such an extent as in this case of hydrophobia.

In our patient, probably, there is a degree of subacute inflammation of the theca. If it occur in the upper portion of the spinal column, the pain and sensibility are felt in the arms. If in the lower part, an affection of the bladder, or tenderness of the lower limbs, is the result. This latter was in fact the case in our patient; and I saw the same given a little while ago in private practice.

In one case (a clergyman), where it had continued for two years, I used the actual cautery, and it proved exceedingly useful. The sensibility in that instance was so great that the slightest friction amounted to torture, if he took a saline draught, or if the smallest degree of friction was applied to the surface, with or without an embrocation. This gentleman completely recovered, and has remained well ever since. In the instance before us, if cupping had not been as effectual as it was, I should have employed counter-irritation in some other form, probably the actual cautery. The patient is now getting on very well. The morbid sensibility of the limbs is quite gone; she merely complains of weakness in the lower limbs. The tonics which were given were administered with a view of invigorating the constitution, and preventing a recurrence of the irritability of the surface. I may here, gentlemen, again repeat what I have before remarked to you, namely, that debility is the very pabulum of inflammation and irritation. It is necessary to make a discrimination between tone and stimulus; the proper administration of tonics brings up slowly the tone of the habit; that of stimulants rapidly rouses its nervous energy; but this is always followed by a degree of collapse, in the ratio of the previous excitement. *Stimulus* causes action but exhausts; *tone* affords the capability of action, without exhaustion.

LECTURES

ON

THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE V.

Perception—Sensation—Intellect—Texture, and Tissue.

I HAVE hitherto, it will have been observed, prefaced the remarks made on faculty and function by a brief description of the structure employed in their development; and you might now expect that I should commence the present section of the course by the anatomy of the brain, inquire respecting its general formation, and investigate the claims of those individuals to physiological and pathological rectitude who have recently proposed a method entirely novel

of unfolding this organ, and of inferring the mode in which it manifests its functions. As, however, I defer the anatomy of the heart till I treat of those irregularities which constitute its disordered state—as I defer the description of the liver and other viscera on the same principle, I think the anatomy and physiology of the brain itself, although so important a part of the perceptive and sentient organization, will better precede the diseases of the brain, than find a place in these general and preliminary lectures.

That what we call the nerves are the media both of sensation and volition, may be readily proved from the simplest experiment. Bruise, or merely touch and irritate a nerve going to a limb, and both the sensation and motive power of that limb will soon be brought into a different condition from what it was previously to your experiment; and paralysis, from its thorough formation to the slightest manifestation of deficient power, is produced by the same kind of interrupted sense and volition, without the aid of the experiments.

Now, as the arteries, and veins, and lymphatics, are in every part of the animated machine working and acting under their respective stimuli, so whenever there is life there are nerves—these being more or less abundant as sensation is more or less acute; and, should that state of vessels which is named inflammation occur in a part (as in bone), which is not ordinarily so sensible as the soft parts, it is to be remarked that with the increase of activity and number of vessels, there is always a corresponding increase in nerves and perception, so that these parts become now painful, which were previously almost insensible.

The nervous branches were formerly described as productions of the brain—the reverse doctrine is now taught—and the brain is rather considered as the organ receiving than transmitting the nervous cords.

We used to hear of them as nerves, first of the senses—such as the optic for the eye, the auditory for the ear—then those for sensation generally, and those for voluntary motion (these, indeed, not clearly defined as two distinct orders, although suspected to be such even so far back as Galen). Then there was an organic or involuntary system of nerves—these imagined to influence the organic or mere animal motions—these so constructed as in one chain, as it were, to bind and connect the whole nervous power: this last was called the great sympathetic nerve.

The first set of these nerves under this arrangement originate principally at the basis of the brain, near or about that prominence which will afterwards be described as the tuber-annulare, made up of processes or crura, as they are named from different portions of the encephalic mass. The nerves for sense and motion were thought to originate from the extension of the tuber-annulare or Varoli's bridge into the commencement of the spinal cord—where it is called medulla oblongata—while the combining, or great sympathetic or ganglionic nerve was described as originating from the second branch of the fifth pair from the brain, which nerve supplies feeling to the cheek and motion to the jaw. Then the par vagum, which is a division of the nerves of hearing (7th pair), passes down by the great artery of the neck (the carotid), goes likewise to the formation of the sympathetic, which last traverses through the whole of the visceral or organic system. It is everywhere studded with knots, or, as they are called, ganglia, which are considered, in the system of Bichat, as so many little animal brains, or parts on which the nervous influence is concentrated: they are said to be large and numerous in proportion as the individual is disposed to the indulgence of gourmand pleasures; the assertion has indeed been carried so far as to state that London aldermen are remarkable for them. This sympathetic or ganglionic nerve is then an organic nerve, while the nerves of sense, and of sensation, and of motion, are more properly vital nerves.

Lately, a new division has obtained of these organs, the full development of which Sir Charles Bell has the credit of eliciting, although, perhaps, a very great share of the merit is due to Shaw, to Mayo, and to Magendie.

This system takes the entire of nervous supply from the base of the brain, through the whole length of the spinal cord, and it first announces the nerves of the senses, as did the scheme of former anatomists, viz. for vision, hearing, taste, smell; it then recognizes four divisions as combined into one whole. I have intimated that anatomists always found a difficulty in accounting for the functional difference between nerves of feeling and of motion, while their origin and course seemed the same. Here the scheme to which I now allude prefers the greatest claim to originality and truth; the author, or authors of it find, through the whole course of the spinal brain, (as what was formerly and absurdly called spinal marrow is now called), grooves, from which nerves transmitting sensation and motion have a double origin—the first being supplied with a ganglion at their roots, the motive nerves being without these. Then, beside the spinal nerves, Sir Charles Bell finds the fifth from the brain to have the same structure and double office, and the tenth from the brain, or sub-occipital of the former anatomists, originate thus doubly and laterally, and one of the roots is supplied with a ganglion. So much for the two first divisions. The third division Sir C.

Bell names respiratory nerves. They are the par vagum of the eighth pair, the *portio dura* of the seventh, the accessory of the eighth, and the phrenic nerve going to the diaphragm—said to be principally constituted of the second, third, and fourth of the upper spinal nerves—and the external respiratory having the same origin. These, it is maintained, are distinct from the nerves of sense and motion—they do not pass off doubly and laterally, they have no ganglia at their roots, and they do not bestow the faculty of feeling on the parts to which they are distributed.

The fourth division of this new plan and arrangement is the sympathetic of former anatomists.

It is, I think, in the discovery of the distinction between cords for sensation and motion, and in the development of what are named—not perhaps in strict propriety—respiratory nerves, that the scheme now adverted to is original and highly useful. I shall afterwards have occasion to show how explicatory these nerves are of several disordered states of the windpipe, the gullet, the heart, the lungs, &c. which had hitherto been exceedingly obscure; then, again, motion remaining in the jaw while sensation is lost on the cheek, admirably substantiates the double power of the supposed sense and motive nerves; and, upon the whole, I look on these investigations respecting the perceptive portion of our organization as having been productive of more substantial and positive and practical good than any thing which modern anatomy and physiology have beside effected.

As to the mode in which sensation is propagated through the nervous system, all the theories that have hitherto been advanced are more or less fallacious. A tubular structure in the nervous branch has been imagined by some theorists, and the conveyance of both painful and pleasurable feeling referred to a subtile fluid transmitted from and to the brain with almost inconceivable velocity. The existence of a nervous fluid has never indeed been absolutely disproved; but that it does exist is rendered exceedingly problematical, to say the least, when we contemplate the general laws of sensation, of thought, and of intellect. In the first place, the most minute observation, with the most powerful lens, has not hitherto been able to detect any thing like a hollow or tubular construction even in the largest of the nervous ramifications. In the next place, the amazing velocity with which sensations are transmitted, would seem in some measure inconsistent with the notion of an impelled fluid; particularly when we call to mind the reacting communications, as they have been termed, between the centre, or supposed centre, and the several points of sensation. Indeed, were the notion of nervous fluid to be admitted, such admission would force us to forego the principle of fibrous construction in the brain and nerves, lately contended for, especially by Gall and Spurzheim, and now coming to be pretty generally received.

It might be stated, too, as an argument against transmitted *matter*, of whatever tenuity or subtlety, that sensations arising from impressions on one part of the system are not necessarily felt through the whole course of the nervous ramifications; but they communicate in two distant parts. the intermediate link of nerve being without any perception at the time. Thus a sharp pain shall shoot, as it is termed, with velocity from one portion of the body to another, but the cords which shall have been the organs of this communication or transference shall not, perhaps, have had the slightest sensation produced in them.

In all this, however, it must be recollected, that our reasonings are rather, if I may so speak, negative than absolute, and some facts are still alleged by physiologists in favour of a subtle matter as the mean of sensation. An experiment. first, I believe, made by Hoffman, and repeated by Monro, has been thought a sort of presumptive evidence of a fluid, or matter of some kind, being employed by nature in the function of feeling. A nerve leading to a large organ (the diaphragm) was tied, and the immediate consequence of the ligature was a cessation of motion in the supplied part. Upon pressing, however, or squeezing the portion of the nerve below the ligature, a motion was immediately communicated to the organ, and this effect was attributed by the experimenters to forcing out the stagnant something that had been received from the source of nervous influence, and thus caused to be lodged or become quiescent, from having no longer any impulse from behind.

The celebrated Hartley was, if not the founder, the abettor of that theory which assumes a vibratory motion in the nervous fibrillæ, for the development and maintenance of nervous energy—the vibration being dependent on a kind of æther. This hypothesis, however, is equally gratuitous and, if possible, still less accordant with analogy than the one to which I have just referred; since, even if the fibrous structure of the sentient organization be actually proved, the supposition of nerves being vibratory cords, is entirely inconsistent with every thing we know respecting their composition, disposition, and modes of attachment. As to the chemical explication of the problem, they are all unworthy the eclectic spirit and philosophical accuracy of the present day; thus. to talk of oxygen as the principle of irritability, as irritability is the principle of life, is to talk a language vague and unsatisfactory in the extreme; but the chemico-electric explication of the

secret in question may be considered as not in all instances so outrageously at variance with sober deduction as some others. The rapidity, indeed, with which electric excitations are transmitted through the media that conduct them, is almost equal to the velocity of thought, at least of sensation, and many facts afford a sort of communicating point of analogy between the one and the other order of phenomena.

There is one objection indeed to the assumed resemblance; it is this: that, however long the line of electric impulse, the whole length of that line is equally affected, which is not the case, as before remarked, with nervous influence. Besides, as in the experiment of Monro, it has been found that if a nerve be divided by a transverse section, and afterwards the ends be brought into precise contact, the influence would be arrested at the point where the section and readjoining had been made; whereas, the two extremities of an electric conductor being thus again brought into contact, the excitation would be resumed.

In the Anatomy of *Monro tertius*, or the present professor, this experiment is related, and the inference as above deduced; and by the way, I may say of this book, that it is well worthy the student's possession. The manner, indeed, of the work is not of the first order; but the physiology is occasionally so good, and the references to treatises so judicious, that I think the public have not appreciated the volumes equal to their merit.

I conclude this part of my subject by intimating that, although the galvanic or electrico-chemical theories fail in fully unfolding the arcana of nervous excitability, there is so much of alliance in the one and the other excitation, and so much apparent connection between even aerial electricity, and the integrity of thought and feeling, that I am disposed to think, as I have elsewhere stated, that meteorological medicine, if it may so be termed, demands more assiduous cultivation than it has hitherto received. It may in some measure be anticipating what I shall afterwards have occasion to advance in reference to positive and negative electricity in animal life, that I only yesterday had my thoughts turned especially to the connection of this, with the alternating conditions of the atmosphere, by remarking the exceeding state of nervous excitation manifested by the inmates of the Peckham Asylum for lunatics, to which I am officially attached. The weather was particularly stormy, and so were the minds of my patients; and who is there at all nervous—far under the grade of admitted insanity, who does not find alternations in his feelings and dispositions, strikingly accordant with alternations in the air?

But I must here check my disposition to enlarge. I have now, gentlemen, slightly touched upon the organization through the medium of which circulation, assimilation, and perception are educed; and we are prepared for the relation of those morbid conditions to which they are especially obnoxious. Before I conclude the present lecture I will, however, just advert to the circumstance of there being several textures and tissues, which it is necessary for the medical practitioner to recognize as the occasional points upon which disorder more particularly touches in its general march through the whole organic frame.

How texture is first evolved it is difficult to say. Greville Jones beautifully traces all its modifications to a primary tube, which gradually produces other tubes, the sides of these tubes being secreted and expanded as development and growth advance, till at length the body comes from this primordial germ, to be expanded into full formed man, with the susceptibilities that are peculiar to life; and which after all, as I told you at our last meeting, is but matter so formed as to be the recipient of vital stimuli.

I shall here make an extract from my friend Greville Jones, which at once beautifully delineates these peculiarities, and brings me to the mention of another power or faculty beside feeling, which pervades the whole of the motive organization—which was first taught fully by Haller—which belongs to those organized beings which are without any thing that approaches even to brain and nervous system, such as we find in animals of a higher class; but which is still thought by some to be referrible to the communication of minute nervous fibrillæ that every where pervade fibrous or irritable structure; but which still seems different in its essence and manifestation from even those nerves that in a manner feel and act without a consciousness of feeling and acting; and which even dips down from the lowest grade of animal life and diffuses itself among vegetable fibres.

"The animal," says our author, "performs acts as astonishing, though operating on a smaller scale as the celestial motions—acts too that are far more astonishing than any thing presented by chemistry or electricity; and in addition to those, others so far removed from any analogy to any of these as to require for their investigation a whole series of sciences. Yet how are these processes performed? The action of vessels forms and supports every living being; from these are formed alike deadly poison and refreshing fruits—the odorous aroma of flowers, and the offensive stink of the polecat, shining hair, and sparkling eyes. From a sponge to a man, every part, and every natural product, is the result of the action of vessels; and this action, which is called *secretion*, is to the world of animate nature,

what attraction and repulsion are to the matters that compose our earth.

So, again, the simple power that the *animal fibre possesses of shortening itself*, enables it, when aided by the convenient position in which it is placed, and the mechanical force to which it is attached, by the *vessel power* to perform all great animal movements. By this power, and by this alone, the oyster closes, and the lobster nips; the fish shoots in the water, and the bird cleaves the air; the toad crawls, the lion springs, the horse kicks; all animated beings move and communicate; and man subdues the creatures, and employs the elements by which he is surrounded."

While, then, the nervous agency gradually mounts in the scale from mere unconscious impression, up to the highest display of mental power, so does this second species of susceptibility ever characterize vitality, grows with its growth, strengthens with its strength, and departs at its closure; and so does it come to develop membrane, form vessel, and concrete fibre, in the way alluded to when we last met. But what are these secretions and textures? They are bone, which I need not describe either as to its form or use; cartilage, which may be described as a species of soft bone, and the use of which it were out of place also to enter upon here; then there is muscular and tendinous fibre, the first of which seems the especial residence of the wonderful faculty I have been dwelling upon as distinct from sensibility, and yet as necessary to life. Serous membrane may be next adverted to as a very important part of structure for the physician to take cognizance of; it envelops the viscera, and when in a state of disorder has its especial and distinguishing characteristics of such malady, distinguished from what are named mucous membranes, which, as the former invests, so these line the cavities of parts, and are the residences of especial affections, afterwards to be noticed; these last membranes have a marked connection with the exterior surface of the body, which I shall hereafter refer to as a modifying circumstance in many morbid affections. This dermoid expansion or general integument of the surface must likewise be considered as one of the secreted tissues demanding notice. Of the glands and their secretions, to which I alluded in my last lecture, I shall also have to speak when going nosographically through our chart of disorder; and then, beside membrane investing or lining, and particularly secreting, there is what has been called parenchyma, such as the substance of the lungs, the liver, &c.

Let me incidentally remark, that all these parts of the body are naturally in a state of connection; so that there is no actual cavity until matter be introduced so as at once to make and fill such cavity. Even the sides of the urinary bladder fall together, and are only separated to receive the secretion poured into it from the kidneys through the ureters.

I have thus, gentlemen, fulfilled my engagement with you, of presenting a very slight sketch of the structure and functions of the body generally. Your natural discernment and good sense will cause you to perceive that the organized being is so minutely constructed; the parts of which it is made up are so much like a wheel within a wheel, that not the smallest portion can be contemplated abstractedly; that where there is blood to circulate, there is nerve to feel, there is gland or tube to secrete; there is another machinery to take up, and another to throw off; that there is vessel within vessel, nerve going to vessel, vessel again supplying nerve, and membrane forming membrane, in such sort that, begin from what point you may, you must in a manner plunge in *medias res*. I commenced with the blood; but what is this blood, with all its boasted "life," without the vessels that form it—without those that circulate it? Had I began with tissue, the proper understanding of this tissue implies the knowledge of secretion, excretion, and absorption. The nerves, again, are mere dead matter, when out of the connection which gives them their vital susceptibility; while susceptibility, or excitability, are again only coexistent with blood, and vessels, and secretion, and membrane; and these all under the exciting impulses which together constitute the phenomenon or manifestation that is somewhat absurdly called the vital principle.

I mention these particulars to my hearers, both in order to shew the necessary imperfection of our endeavours when we attempt to commence a course of lectures by beginning with fundamental positions, or primary principles, and also that your attention may ever be kept alive to this connection of parts together, and general subordination to a whole, which is apt to be too much lost sight of when we localize complaints, and talk of this or that membrane, or of this or that organ, as the residence of disease.

In pursuance of my plan of sketching out disordered circumstance as more particularly manifested by a derangement of particular functions, I shall, at our next opportunity, have to summon your attention to inflammation, loosely so termed, and to hæmorrhagic fluxes.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XI.

Dimensions of the Fœtal Head, Shoulders, and Pelvis—Adaptation to the Maternal Pelvis in Parturition—Mechanism of Natural Labour by the Head and Abdominal Extremity of the Fœtus; or by the Breech, Knees, and Feet—Scientific Practical Inferences—Fatal Effects of Mal-Practice.

In the preceding lectures, I described the normal and abnormal states of the feminine pelvis; and have next to notice the obstetric peculiarities of the fœtus, and its adaptation to the parent in the function of human parturition. Nothing can be more perfect, or more wisely ordained, than the relations between the mother and infant in the process of nativity. This will appear obvious by the facts which will be mentioned in this lecture.

Dimensions of the Infant's Head, and its passage through the Pelvis during Parturition.—The parts of the infant concerned in delivery, are, the *head*, the *shoulders*, and the *breech*.

The HEAD of an infant at birth, when separated from the body, is obstetrically divided into regions—the *vertex*, *summit, or crown;* the *base of the skull;* the *face;* and *temporal regions.*

Vertex—summit or crown of the head—is characterized by certain marks, and these are, the *anterior* and *posterior fontanelles*, or *openings of the head* (*plate* 2, *fig.* 1, *a, i*), and the sagittal suture, or separation between the bones (*d, g*), which runs from the forehead to the back of the head.

The *base of the skull* presents when the infant advances by the feet or breech, or when the body is separated from the head.

The *face* possesses signs which can seldom be mistaken.

The *temporal regions* are discoverable by the ears.

The head is measured, like the female pelvis, for the purpose of comparing natural with preternatural presentations of this part during parturition. It presents five diameters and two circumferences.

Diameters. a. The *occipito-frontal* (*d, g*), from the back of the head to the forehead, generally measures five inches, and is called the *long diameter of the head.*

b. The *bis-parietal* is *from one parietal protuberance* (*e, e*) to the other, across the crown of the head (from ear to ear), which measures three inches and a half; and is also termed the *short diameter of the cranium*, in contradistinction to the former.

c. The *occipito-mental*, or *oblique diameter*, proceeds from the back of the head to the chin (*fig.* 3, *r, r*), and measures four inches and a quarter. This will be the presenting part of the head when the infant comes into the world by the feet or breech.

d. The fourth diameter of the infant's head is from the vertex or crown to the base of the cranium (*g, g*), and usually measures about three inches and a half.

e. The fifth diameter of the head is from one mastoid process or protu-

berance behind each ear to the opposite one, and measures about two inches and a half.

The longest admeasurement of the head, superiorly, is from before backwards (the *long diameter*), and the shorter from ear to ear (the *short diameter*).

As the head is composed of several bones, which are separated by sutures, it may be considerably compressed, when the pelvis is small, as the bones may, and generally do, lap over each other during labour, unless when perfectly ossified, which is a rare occurrence; and thus the diameters may be less than those already mentioned.

It is also to be borne in mind, that the head may be astonishingly enlarged by hydrocephalus, and, consequently, the diameters may be of much greater extent than are usually observed.

The head of male infants is supposed by some to be about one thirty-second part larger than that of female; and hence the greater mortality of the former during tedious or difficult labours (Dr. Clarke, of Dublin; Dr. Bland, &c.)

f. The two circumferences of the head are:—1. The perpendicular division of the head into two hemispheres: the extent about fourteen or fifteen inches. 2. The perpendicular into two halves, anterior and posterior: the extent of this circumference being from ten to eleven inches.

Movements of the head upon the trunk.—The head of the fœtus may be flexed or bent upon the chest, turned upon the back, or inclined on either shoulder. It may also describe a fourth part of a circle or rotation.

The shoulders of the infant.—The shoulders of the fœtus, considered relatively to parturition, are only to be described as regards their size. They measure from four to five inches in breadth, but may be reduced considerably, perhaps an inch or more, by compression.

The breech of the fœtus.—This part is also to be considered as it regards parturition. It is composed of fourteen bones in the fœtus, separated by cartilages, and capable, like the head, of considerable compression, which facilitates labour. The extent from one hip to the other is about five inches, and is the long diameter.

Conclusions.—The longest diameters of the fœtus are adapted during natural parturition to those of the mother. The longest diameters of the brim of the female pelvis are the oblique, whilst that of the inferior strait or outlet is from before backwards, the antero-posterior or coccy-pubic; and it follows that the largest parts of the infant must be placed obliquely at the brim or superior strait of the pelvis, and must undergo a movement of rotation to place themselves antero-posteriorly at the inferior strait.

The depth of the pelvis posteriorly being from five to six inches, and anteriorly from an inch and a half to two inches, explains how the occiput, or presenting part of the head, escapes first during labour. Thus we feel the occiput or back of the head under the pubis, while the forehead is on the perineum, and the face in the concavity or hollow of the sacrum, for one or more hours before the head is born. Young or uneducated obstetricians often fall into error, by supposing that delivery will be speedily accomplished on feeling the head under the pubis or through the vagina; while the forehead and face are situated in the concavity of the sacrum, and must ascend towards the pubis before the head can come into the world.

The axes of the pelvis form a curved line, extending from the cavity of the pelvis along the coccyx and perineum towards the pubis and maternal abdomen, the concavity of which is turned towards the pubis and the convexity towards the sacrum (*plate* 1, *fig.* 4, *d, d*; *plate* 2, *fig.* 2); so that the fœtus, in being expelled, follows this line or direction, the occiput, or back of

the head, escapes on the pubis, and the obstetrician follows it in every operation of traction. It is in this direction he extracts with the forceps or lever, and also with the hand in the operation of version or turning.

In proof of this statement I shall now demonstrate the mechanism of natural parturition by the head and feet, and the application of the forceps.

Mechanism of Natural Parturition, or Labour by the Head.

Natural parturition, according to British authors, terminates by the presentation of the vertex, or crown of the infant's head, the pelvis of the mother being of the natural dimensions.

Parturition may terminate naturally by the *head, feet, knees,* or *breech,* according to foreign obstetric writers. This last opinion cannot be doubted.

Natural parturition by the head.—Natural parturition may be effected by four positions of the head, which correspond to the oblique diameters of the maternal pelvis.

First position. Principal relations.—The occiput is turned to the left acetabulum or cotyloid cavity, and the forehead to the right sacro-iliac joint, symphysis, or synchondrosis. The posterior region of the infant is in front and to the left; the anterior is backward and to the right; and the feet are towards the fundus, or upper part of the uterus*.

Mechanism.—Pressed by the contractions of the uterus, the head is flexed or bent upon the chest, and its occipito-mental diameter becomes parallel to the brim or superior strait of the pelvis. Thus the vertex, or crown of the head, presents or descends: the vertex advances; with one ear to the pubis and the other to the sacrum, it gradually sweeps over the concavity or hollow of the sacrum; arrived at the inferior strait, the face is to one side or ischium, and the occiput to the other. It now encounters considerable pressure from the planes of the pelvis, the rami of the ischia, and sacro-schiatic ligaments, which effect on it a rotatory motion, by which the face is turned into the concavity or hollow of the sacrum, and the occiput to the arch of the pubis. (*plate* 2, *fig.* 2.)

The long diameter of the infant's head is now in the long diameter of the outlet of the maternal pelvis, and is to be raised towards the abdomen (*plate* 2, *fig.* 2), so that the crown of the head, the forehead, and face, may be elevated towards the pubis and gradually expelled. Dr. Nægele contends, that it is the parietal, and not the occipital bone, which presents at the left sacro-iliac diameter, and that it is the ischium, and not the hip, that appears in the long diameter of the outlet.

When the face is in the concavity of the sacrum, the head is advanced more and more, by the contractions of the uterus (labour pains); it gradually distends the perineum and genital fissure, and after each pain ascends into the concavity of the sacrum. Each pain distends the perineum and external genital aperture (vulva, pudenda), and after a longer or shorter interval, the resistance of the external genitals is overcome, and the head escapes externally (*plate* 13). At this moment the occiput turns towards the pubis, the face advances along the sacrum and perineum (*plate* 2), and the back and middle of the head having escaped the genital aperture, the perineum (soft parts) expands over the forehead and face, the uterus pressing forcibly, and the head escapes towards the pubis or abdomen of the mother. When the head has escaped, the occiput is turned towards the left groin, and the face towards the posterior and internal surface of the right thigh. By this

* Nægele contends that the forehead is turned to the left sacro-iliac symphysis, in a great majority of parturitions.

rotation the shoulders are turned in the oblique diameter of the brim of the pelvis; one descends into the concavity of the sacrum, the other is turned to the pubis, and when they arrive at the inferior strait or outlet, they are rotated or turned by the inclined planes in the same manner as the head, one advancing towards the pubis, and the other towards the os coccygis; that is, the long diameter of the infant's body passing in the long diameter of the outlet of the maternal pelvis. The right shoulder is now towards the arch of the pubis, and the left towards the sacrum. At this moment the head changes its relations; the face is directly turned to the middle and internal part of the right thigh, and the occiput to the internal and middle part of the left. The inferior or lower shoulder receives all the contractions of the uterus, it speedily appears at the genital fissure, while that under the pubis serves as a point of support, and ought to be raised by the obstetrician towards the abdomen. As soon as the shoulders are expelled, the body generally follows with rapidity, in an oblique direction, to the genital aperture, and not from pubis to sacrum. The hips of the infant are adapted with mathematical precision to the long diameter of the brim, on either side, and also rotated, like the head and shoulders, in the cavity of the pelvis, by the planes of the ischia, so that one hip escapes under the pubis, the other towards the sacrum; the longest diameter of the infant being here also adapted to the longest of the maternal bones or pelvis.

Thus it appears that the human offspring comes into the world, its most voluminous parts being adapted to the widest of those of the female parent. It is most essential to comprehend clearly the mechanism of natural parturition; for without a knowledge of it, no practitioner can act with safety or satisfaction in the numerous difficult cases that frequently present themselves, every one of which, except the Cæsarian section and other cutting operations, is managed in strict imitation of the process of natural labour.

Second position.—The relative positions of the infant and parent are the same as the last, but in an inverse direction.

Third position. Principal relations.—In this position the occiput instead of the forehead corresponds to the right sacro-iliac joint, or symphysis, and the forehead to the left acetabulum, or cotyloid cavity. The posterior region of the infant is directed backwards and to the right, the anterior forwards and to the left.

The head at the superior strait is flexed on the chest, and the occiput descends into the cavity of the pelvis. Arrived at the inferior strait, the head encounters the inclined planes of the ischia, which impress upon it a rotatory motion; the occiput glides on the right lateral and posterior inclined plane so as to place itself in the curvature of the sacrum, whilst the face glides on the anterior and left lateral inclined planes, so as to come under the arch of the pubis. The occiput now receives all the contractions of the uterus; it passes over the sacrum, coccyx, and perineum, while the face ascends in the pelvis, and is depressed on the chest.

As soon as the occiput begins to appear at the vulva, or external genital aperture, this part is dilated during every pain, and contracted when the pain ceases, so that the occiput re-ascends into the cavity of the sacrum. Finally, the resistance of the external genitals is overcome, the occiput or back of the head passes into the world along the inferior axis of the pelvis, and the face escapes from under the arch of the pubis.

The occiput now corresponds to the posterior and internal part of the right thigh, and the face to the left groin.

The shoulders are obliquely engaged at the superior strait, and pass into the cavity of the sacrum. Arrived at the inferior strait or outlet, they encounter the inclined planes, which impress on them a rotatory motion.

The right shoulder is turned into the curvature of the sacrum, the left is placed under the arch of the pubis. The head now changes its relations; the face looks to the middle part of the left thigh, and the occiput to that of the right thigh.

The lower shoulder, which is towards the sacrum, receives all the contractions of the womb, whilst that which is under the pubis is a point of support.

When the shoulders are expelled, the rest of the body passes without any difficulty, the hips of the infant being turned in the long diameters of the brim, cavity, and outlet of the pelvis, as in the first position. This presentation may be often reduced to the second.

Fourth Position. Principal relations.—The occiput corresponds to the left sacro-iliac symphysis, the face to the right acetabulum or cotyloid cavity. The posterior region of the fœtus is directed backwards and to the left, the anterior region forwards and to the right. The feet are towards the fundus, or upper part of the uterus.

Mechanism.—The mechanism of the fourth position is the same as the third, except that the rotation and progress of the infant are in an inverse sense. This position may be naturally converted into the first.

Natural Parturition by the Abdominal Extremity of the Fœtus—Pedal Presentations.

Positions of the Feet.—The feet present in four principal positions, which correspond to the oblique diameters of the brim of the pelvis. The fœtus is placed in these positions in such a manner that the thighs are bent on the pelvis, the legs on the thighs, and the heels are applied to the breech.

First Position. Principal relations.—The heels correspond to the left cotyloid cavity (acetabulum), the toes to the right sacro-iliac symphysis.

The posterior region of the fœtus is directed forwards and to the left, the anterior backwards and to the right.

Mechanism.—Pressed by the contractions of the uterus, the feet descend with facility into the cavity of the pelvis, and through the outlet. The breech encounters the inclined planes, is rotated, and the left hip is placed under the pubis, and the right is in the concavity of the sacrum.

The longest diameter of the infant's pelvis, which is from hip to hip, as already stated, is first adapted to the oblique or longest diameter of the brim, then to the cavity, and lastly to the antero-posterior, coccy-pubic or long diameter of the outlet. This adaptation does not always occur, as when the maternal pelvis is very large; in which cases the breech may escape or come into the world transversely, each hip being turned to those of the mother.

The inferior hip of the infant, which is towards the perineum, receives all the contractions of the womb, escapes first, whilst that under the pubis is a point of support. The body is now in the oblique diameter of the brim, and gradually turns its anterior surface towards the sacrum or spine of the woman. The shoulders are engaged obliquely in the brim or superior strait, are next turned towards the hips of the mother, and the arms are placed on the sides of the head. The head and axillæ pass in the oblique diameter of the brim, then into the cavity, and, lastly, into the long diameter of the outlet. The arms now escape, and the head is expelled.

Thus the head is engaged obliquely at the superior strait, and the chin is flexed on the chest. Arrived at the inferior strait, it undergoes rotation, the face is turned into the cavity of the sacrum, and the occiput is placed under the arch of the pubis.

The chin courses along the concavity of the sacrum, coccyx, and perineum,

and presents at the vulva. The different parts of the face traverse the sacrum, coccyx, perineum, and escape at the inferior commissure or angle of the vulva; the forehead, crown of the head, and occiput follow on the same parts, and the back of the head is born last.

In pedal presentations the obstetrician should imitate nature, and during the birth of the head, he ought to support the body of the infant on the left arm, introduce the fore-finger of the left hand into the mouth, to depress the chin on the chest, and raise the back of the infant towards the abdomen of the mother, as delineated in plate 2, fig. 2.; so that the back of the infant will be placed on the abdomen of the mother, and the face and head will escape in the manner just mentioned. An ignorant obstetrician makes traction of the infant downwards and backwards, draws the chin against the sacrum, coccyx, and perineum, and cannot possibly extract the head in this direction. The evil results of this bad practice are, the destruction of the infant, the infliction of severe and unnecessary pain upon the mother, the injury of the sacro-coccygeal articulation, or dislocation of the coccyx, the contusion or laceration of the perineum, and sometimes the separation of the body from the head, the latter being left in the pelvis. In the course of my observations, I have remarked repeated examples of each of these diseases induced by ignorant obstetricians, both male and female. They suppose that when the body of an infant is expelled by nature, the head, which is so much smaller in appearance, ought to follow without difficulty or delay; and this induces them to make traction *downwards* and *backwards*, instead of *upwards* and *forwards*, that is, in the wrong direction. I shall now demonstrate the scientific and erroneous manœuvres of obstetricians for extracting the infantine head in pedal or footling presentations.

Second position. Principal relations.—These are in exactly an inverse sense to those of the first position, just described.

Third position. Principal relations.—The heels correspond to the right sacro-iliac symphysis; the toes to the left cotyloid cavity. The posterior region of the infant is directed backwards and to the right, the anterior forward and to the left. The head is at the fundus of the uterus.

Mechanism.—The mechanism of this presentation scarcely differs from the first position, as the same parts of the fœtus are found to correspond to those of the pelvis of the mother.

Thus the feet, pressed by the contractions of the uterus, descend without difficulty into the cavity and outlet of the pelvis. The breech is rotated by the inclined planes, and has one hip turned towards the pubis of the mother, and the other to the perineum, or passes transversely through the outlet when the maternal pelvis is large, or the fœtus small or premature.

The shoulders are engaged obliquely at the brim, and descend into the outlet, one being towards the pubis of the mother, the other towards the perineum. The head is engaged obliquely in the brim of the pelvis, the chin is flexed on the chest, and after rotation, the normal, so often mentioned, the occiput is turned into the curvature of the sacrum, whilst the face is placed under the pubis.

The occiput traverses the sacrum, coccyx, and perineum, whilst the face ascends into the pelvis; the neck is pressed against the inferior commissure or angle of the vulva, and is pushed downwards; the face disengages itself under the pubis, and the occiput is born last.

Fourth position. Principal relations.—The feet correspond to the left sacro-iliac symphysis, the toes to the right cotyloid cavity. The posterior surface of the fœtus is backwards and to the left, the anterior forwards and to the right. The head is at the fundus of the uterus.

The mechanism is the same as in the third position, but in an inverse sense.

This fourth position may be readily converted into the first.

Positions of the Knees. *Principal relations.*—The knees may present, like the feet, in four positions. The legs are flexed on the thighs, and these are extended on the pelvis.

First position. Principal relations.—The anterior part of the legs corresponds to the left cotyloid cavity, the anterior part of the thighs to the right sacro-iliac symphysis. The posterior region of the fœtus looks forwards and to the left; the anterior backwards and to the right.

Second position—Is the reverse of this.

Third position. Principal relations.—The anterior part of the legs corresponds to the right sacro-iliac symphysis; and the anterior part of the thighs to the left cotyloid cavity. The posterior region of the fœtus looks backwards and to the right, the anterior forwards and to the left.

The fourth position is the reverse of this.

The mechanism of the knee, or genual presentation, is exactly the same as those of the feet.

Positions of the Breech are the same as those of the feet or knees, unless that the breech presents first.

It is essential to remember, that the hips of the infant ought to be adapted to the long diameters of the brim and cavity of the pelvis, and turned to the pubis or abdomen, and sacrum or back of the mother, when passing through the outlet, as already stated in describing the mechanism of presentations of the feet. It is in this relative position that nature places the hips of the infant in natural labour, as already stated.

The breech may present with the abdomen of the infant to the back of the mother, or the reverse, the abdomen of the infant to that of the mother, or either hip of the infant to the sacro-iliac joint of the mother, or either infantile hip to the ilium of the mother, or in the transverse diameter of the brim of the pelvis. In all these cases the practical precept is to turn the hip of the infant to either sacro-iliac joint of the mother at the brim of the pelvis, and to the pubis and sacrum at the outlet, thus adapting the long diameter of the infantile pelvis to that of the maternal.

Some obstetricians advise that the abdomen of the infant should be turned to the back of the mother, or that so soon as the body is expelled in the opposite position, the abdomen of the infant ought to be turned to the back of the mother, because the arms and head pass more readily in this position.

When the body is extracted to the arms, the abdomen of the infant ought to be turned to the back of the mother, and the arms brought down as hereafter described in version or turning. If the abdomen of the infant is turned to that of the mother, there will be great difficulty experienced in extracting the arms, as the elbows will be turned towards the sacrum, and much danger of injuring or dislocating the shoulder joints or fracturing the arm bones; while the occiput of the infant will be in the concavity of the sacrum, the face to the pubis, and extraction rendered much more difficult than in the opposite relations of these parts.

Some obstetricians recommend extraction of the arms, when one is towards the sacrum, and the other towards the pubis after the birth of the body; and advise the lower extremity to be extracted first. This is accomplished by passing the index and middle finger over the shoulder next the perineum, along the arm to the elbow, and drawing this forward; but of this more fully hereafter.

Observations on the propriety of inducing premature Labour in Pregnancy complicated with Tumour. By Dr. Ashwell.

The cases which follow this paper are highly interesting and important; and to four of them, in which tumours co-existed with pregnancy, I must beg especial attention. It is only necessary to look at the results of these, three out of the four having terminated fatally—and to add to the observation, the facts published by Dr. Merriman, of the fatal consequences "of pelvic tumours obstructing parturition"—to be aware that the subject is one of extreme moment. In a former paper, on "Hard Tumours of the Uterus," to be found in the first number of the "Guy's Hospital Reports," I have expressed the following opinions: "that, in certain conditions of these morbid growths (there stated), the iodine will be found extremely useful, always excepting in the state of utero-gestation. To some, who have not observed the course and results of these tumours, it may appear singular, that conception should occur at all: but let it be remembered, that they interfere only slightly with the general health, and that menstruation is almost as regularly performed as when the uterus is not structurally diseased. It is also remarkable, that pregnancy occasionally (I may say, not unfrequently) takes place when these tumours, or other abdominal or pelvic growths, have existed for years, and when that period has arrived at which the conceptive susceptibility might naturally be supposed to have nearly ceased. It is almost superfluous to remark, that patients becoming pregnant in such a condition of the viscus, are exposed to the most imminent danger. The tumours soften during the latter months; the increased vascular supply leads to inflammation; unhealthy and imperfect suppuration is established in them; and death occurs soon after parturition." This, in few words, is, I believe, the true pathological history of these cases: and, if more complete investigation be made, I am not without sanguine anticipations, that the profession will generally agree with me, that a better and more certain plan of treatment may be found, and that such will consist in what I now beg to propose—the induction of premature labour, before that period when the tumours shall be subjected to pressure, and contusion, from the firm, large, and unyielding gravid uterus.

To establish the propriety of inducing parturition prematurely, in these unfortunate cases, it is necessary to prove two or three positions; amongst which, I may especially mention the following:—

1st. That when death occurs, after a labour so complicated, the result is only slightly, if at all, referrible to the uterus, which rarely sustains any serious injury; but is mainly produced by inflammation, softening, and unhealthy suppuration in the growth itself; these pathological changes leading, in some instances, to rapid sinking; while in others, the powers of the system having been less impaired, death ensues in a few days, from the constitutional collapse, induced by the protraction and difficulty of parturition, and by the contusion of the tumour and other soft parts. And 2ndly, That premature parturition, artificially induced (the remedy I propose), rarely occasions constitutional mischief, is easily accomplished, and affords the best, and, in many instances, certainly the only chance of a safe result to the mother.

1. It must be allowed, that pregnancy complicated with tumours of the uterus itself, of the ovary, or with those of a purely adventitious kind, growing either from the abdominal or pelvic cavities, gives rise, in labour, to difficulties of the worst kind. In parturition, where the danger is produced by the narrowness or deformity of the pelvic brim, cavity, or outlet, the extent of the obstacle can generally be accurately ascertained. If the abbreviation be within certain limits, the forceps is relied on: if, on the contrary, the encroachment on the pelvic spaces be still greater, the perforator is resorted to. In either alternative, if the assistance has not been too long delayed, the probability is, that a fortunate termination will be secured. It is not so, however, where tumours obstruct the birth of the child: here the extent of the difficulty can rarely be correctly appreciated: and even where the head may have ultimately overcome the obstacle, and the uterus shall escape uninjured, the same assurance cannot be entertained of the morbid growth. The safety of a patient, having such a tumour, might have been only barely secured by a freedom from even the commonest excitement, whereby its natural supply of blood would have been, perhaps, diminished; but now, the growth has not only shared in the sympathetic excitement of pregnancy, but has also sustained severe pressure and contusion from the unyielding gravid uterus, and has participated for months in an increased supply of the vital fluid. Thus is the condition of the tumour morbidly aggravated; and if such changes had occurred to it, independently of gestation, it would excite no surprise to find the system painfully affected: but so far from being surprised, we must anticipate, after the protracted and exhausting struggle of labour, that an unfavourable result will frequently occur.

Professional attention has not hitherto been sufficiently arrested by the agency of the tumour itself, in the production of the fatal issue. Of course, it has not been overlooked, that the tumour is the cause of the difficulty in parturition: but it

seems to have been almost forgotten, how well women gradually recover from protracted, difficult, and instrumental labours, where there is no tumour, or adventitious growth of large size. A due estimation of this fact would, I believe, ere this, have led to the practice I am now for the first time proposing: a careful reader of the naratives of labours thus complicated, and of the rapid dissolution following them, will discern to a certain extent, a parallel, as to the fatal sinking between them and labours where the use of instruments has been too long deferred. I have several times witnessed the loss of life in a few hours, after delivery by the perforator, where sixty or seventy hours had been improperly allowed to elapse before its employment; the impression on the system being very similar in both instances.

In all the fatal instances of pregnancy complicated with tumour which I have seen, and where I have had the opportunity of examining the parts after death, the uterus itself has been healthy, or very nearly so; and, in the majority of those recorded, this viscus is reported to have been, *either in a natural state, or free from disease.* Dr. Merriman's Papers (First Part of Vol. X. of Medico-Chirurgical Transactions) also corroborate this statement: and in an able account of a post-mortem inspection of a very interesting complication of this kind, by Mr. Hewlett, in the Seventeenth Volume of the same work, it is said, "To the front, and resting on the tumour, was the uterus, free from disease." These facts will probably satisfactorily prove the first part of my position; viz. that when death occurs, in labours thus complicated, the result is only slightly, if at all referrible to lesion of the uterus. The symptoms during life, and the inspections after death, will, I think, lead my readers to the conclusion, expressed in the former part of these observations—"that the unfavourable termination is mainly referrible to inflammation, softening, and unhealthy suppuration in the growths themselves."

In Cases No. 1 and 2, this will be clearly evident: nor is it possible to peruse their histories, and examine the preparations, or even the drawings, without arriving at this opinion. The 3rd Case (the one occurring in Miriam's Ward) is, in this respect, peculiarly instructive. The patient, after a fair labour, not followed by any distressing uterine symptoms, or by any approach to collapse, suffered most severely from acute pain and enlargement of the tumour, accompanied by an anxiety of countenance, and a hardness and rapidity of pulse indicative of alarming mischief, and ushering in a train of constitutional symptoms, almost if not entirely referrible to the morbid growth; and from which she was not recovered without great risk and difficulty.

The cases already alluded to in the Medico-Chirurgical Transactions, confirm these views. Nor is it difficult to allow, if these remarks, as to the changes induced by the pressure of the uterus and the effects of labour on growths characterized only by their bulk and induration, are true, that, in adventitious or parasitical enlargements of decided malignancy, whether appertaining to the uterus, the ovary, or other parts, the danger must be imminent indeed, fully and satisfactorily accounting for the rapid extinction of the vital principle. If, as in the Case No. 3, where the tumour was only pressed and contused between the uterus and the abdominal parietes and diaphragm, the alarming symptoms, endangering the patient's life, were entirely attributable to the tumour; we may, without any hesitation, acquiesce in the following opinion of Dr. Merriman; viz. "That, upon the whole, the evidence we at present possess is most in favour of opening the tumours: for, of the nine women (out of eighteen) who recovered more or less perfectly, five appear to owe their safety to this operation; and of the three children born alive, or supposed to be so, two were preserved by the same means." These inferences confirm the views contained in this paper—that where the tumours can be preserved from contusion and its consequences, a favourable result may be hoped for.

2. I shall now proceed "to shew, that premature parturition, artificially induced, rarely occasions constitutional mischief; is easily accomplished; and affords the best, and certainly, in many instances, the only chance of a safe result to the mother."

It may not, perhaps, be totally out of place, to preface this portion of the paper by a narration of the cases which first prompted me to think of and recommend the practice.

Some years ago, I was requested to see a poor woman advanced to the seventh month of pregnancy, who was suffering from accidental hæmorrhage. Her former labours, and especially the last, had been difficult and dangerous, owing to what was supposed to be a fleshy tumour situated between the rectum and vagina. On examination, I found a firm, smooth, and unfluctuating growth, about the size of a very large orange, occupying the hollow of the sacrum, and filling up the vagina. With difficulty I reached the os; and, in my anxiety to ascertain the presentation, I dare say my finger penetrated further and more forcibly than it ought to have done, along the cavity of the cervix. I waited in the house some hours; but as the pains and the discharge had entirely ceased, I returned home, somewhat embarrassed about the best mode of procedure. Formerly, the growth had been pushed above the brim; but at these periods it was neither so large

nor so immoveable as at the present time. I determined, if the labour proceeded, that I would again attempt this practice. A day elapsed without my having been sent for; and I was greatly astonished, at my next visit, to hear, that twenty-four hours after my examination, the pains had returned, the membranes had quickly ruptured, and that a dead child, about six months and a half or seven months old, had been easily expelled: thus, unintentionally, I had separated the membranes sufficiently extensively to induce premature labour—the best remedy, perhaps, for the complication. The recovery was good. Soon afterwards, this patient removed from the neighbourhood of the Tower, and I entirely lost sight of her.

Late in the year 1834. in consultation with Mr. Callaway and Mr. Gowar, I saw a patient whose history resembles the case already stated. Mrs. ——— is nearly forty years of age, and, in her last confinement, her safety was endangered by a tumour filling up a large portion of the vagina, which obstructed the descent of the head. After some ineffectual attempts to dislodge it by the medical attendant, Mr. Gowar was called in; and placing the woman on her hands and knees (thus inverting the pelvis), he succeeded, after considerable effort, in getting the tumour above the brim. The birth was now easily accomplished, and the recovery was natural and good. The growth was believed to have increased in the interval between the last and the present pregnancy: and as she was approaching the sixth month, it was thought necessary to determine on what was best to be done. On examination, I was struck with the size and firm attachment of the tumour; which so filled up the vagina, as to make it a matter of difficulty to reach the os uteri: this, after some little time, I accomplished; and satisfied myself that the neck was shortened, and that she was probably correct in her calculation. This examination was repeated by Mr. Callaway and Mr. Gowar; and we recommended that premature labour should be induced a little before the seventh month. On inquiring about the patient in a few days, Mr. Callaway told me, that by the examination we had separated the membranes enough to induce premature action of the uterus, and that a six months' child had been expelled, the mother recovering well.

A perusal of obstetric communications on the subject will remove all reasonable doubt as to the general safety of this method of procedure. I have now induced premature labour in a number of cases; and rarely has there been sufficient excitement of system to cause the slightest anxiety for the well-doing of the patient. I cannot therefore concur in the opinion of the late Dr. Gooch, when he says, "that foreigners are exceedingly afraid of this operation: and certain it is, that great disturbance of the nervous system is produced by it: severe rigors, rapid pulse, and delirium, are the occasional consequences." It is due, however, to the authority of Dr. Gooch, whose name cannot be mentioned without admiration and respect, to say, that he regarded these symptoms as proceeding from nervous irritation, and scarcely continuing long enough to produce any serious results; sometimes ceasing so soon as the pains commenced, and, if not then, after the uterus had been emptied. It may also be remarked, that in the numerous instances recorded, there is scarcely an allusion to any risk or injury to the mother. If, indeed, we reflect for a moment on the formidable dangers avoided by the operation, where there is narrowing and deformity of the pelvis, it will readily be allowed, that the ills of "nervous irritation" may well be endured, to prevent the difficult, protracted, and dangerous struggle which cannot fail to attend parturition under such unfavourable conditions.

The history of artificial premature labour is curious: it was first induced successfully by Dr. Macaulay, in 1756; the idea having probably been suggested by his observing that women with narrow pelves, if labour occurred much before the full period, expelled the child with comparative facility. Like other innovations on established customs, it received, at first, the advantage of a decided and almost superstitious opposition. Denman relates, that in the same year in which it was first performed, an assembly was convened of the obstetric practitioners of London, and a discussion was gravely prosecuted, as to its morality, safety, and utility. Happily, all these questions are now set at rest, by the decided advantages accruing from its performance. It may then, be assumed, that whether labour be induced artificially and prematurely, either by at once rupturing the membranes, or by separating them from the inner surface of the cervix uteri, safety to the mother will be the general result. Further than this, my friend Dr. Francis Ramsbotham has, in many instances, successfully induced premature parturition by the administration of the ergot: and even here, although a drug of controverted powers (in which, however, I place great confidence) was employed, the mother was equally free from all injurious effect. Dr. Ramsbotham says: "All the patients (in whom premature labour had been thus induced) recovered, as well after the most common labour at the full period; and in none of the cases was there the least indication of a disposition in the uterus to assume its contractile function previously to the exhibition of the medicine. I could recite many similar instances equally demonstrative of the power of the drug; and proving the harmlessness of the

medicine, at least so far as the mother is concerned.

I need hardly allude to the statistics of the operation, such information not being within the scope of my paper; but it is impossible to notice the circumstantial data connected with this great obstetric improvement, without congratulating society on the augmented safety of the mother, and on the increased number of infants preserved by its intervention. Dr. Hamilton, of Edinburgh, affirms, that out of twenty-eight cases of premature labour, successively and artificially induced, he has saved twenty-four children; and in one patient he performed the operation in ten different pregnancies. It ought, however, to be remarked, that this is greatly beyond the average amount of success.

Fortunately, "pregnancy complicated with tumour" is not of such common occurrence as pregnancy with narrow and deformed pelves; and, consequently, the necessity for the intervention of art has not been so urgently pressed upon the attention of professional men. Still, if the contingency is more rare, when it does occur it is infinitely more dangerous, at least if the tumour be large, and so situated as to obstruct parturition. Seeing, then, how admirably the dangers of the former class of difficult labours are evaded by premature parturition, I may be allowed to express my great surprise that this operation has not been resorted to in these more formidable associations of gestation. I contend, therefore, that premature labour, artificially induced, is the plan of treatment peculiarly applicable to these cases, almost independently of any reference to the life of the child. In support of this opinion, it may be observed, that there is a vast difference between cases of pelvic narrowing and deformity, where there is nothing to preclude the safety and desirability of pregnancy but this faulty conformation, and cases where morbid growths or diseased enlargements of organs render it superlatively important that impregnation should not occur; or, if it have occurred, that it should not so far advance, as to call into diseased activity the dormant energy of the tumour. The life of a fœtus is, under such circumstances, of comparatively little moment.

This paper would, however, be incomplete, without an attempt to illustrate and explain some of the peculiarly doubtful and difficultly-appreciated circumstances attaching to these forms of malady. I am quite aware, that, not unfrequently, the full time of pregnancy will have been completed before the attention of the practitioner is directed to the existence of a large abdominal or recto-vaginal growth: here the procedure now recommended will be clearly inapplicable, and the judgment and the resources of the accoucheur will soon be in painful exercise. He will then have to proceed timidly and uncertainly; ever feeling, in the highest degree, doubtful about success. The size of the tumour will also induce hesitation; and I conceive that the attendant will be justified in leaving the work to nature, where the growth is small or only of moderate dimensions, and where it is not so placed as to prevent the advance of the child. Various considerations may aid the decision. If the tumour be moveable; if it be so situated, that the enlarging and hard uterus has pushed it out of the way, and does not make painful pressure upon it; if it be the first labour so complicated; or if it be the second or third, the growth not having increased during the intervals of the successive pregnancies; then *sequere naturam* should be the guiding precept. If, however, the opposites of these circumstances present themselves, it would be unwise to run the risk which a labour to be naturally prosecuted at the full time could not fail to induce. Let us take, as an illustration, the third case appended to these observations; where the patient, having a large ovarian growth, passed tolerably well through the labour; but was subsequently placed in imminent danger, by inflammation of the tumour, the constitution sympathizing to an alarming degree. Here, if pregnancy again occurred, (even if the tumour had not increased, but certainly if there had been never so slight an augmentation of its bulk), I should strongly insist on premature labour being induced at the seventh month; thus avoiding the changes of a mischievous kind likely to be produced in the tumour during the last months of gestation, and certainly evading those greater dangers attendant upon parturition.

Without presumption, I may be allowed to express an opinion, that if this practice had been adopted in the interesting cases related by Dr. Merriman, a different result would probably have been attained; although, even in hinting this, for the sake of illustrating my arguments, I am desirous not to be thought to express any other than the greatest confidence in the talents and experience of this distinguished practitioner*. A A careful perusal of the case narrated by Mr. Hewlett, already mentioned, will additionally strengthen my positions: here, nearly two months elapsed between the first parturient indications and actual labour; and during the whole of this period the patient was painfully and most injuriously distressed by sufferings arising from pressure, exciting inefficient uterine action, and obstructing the veins and lymphatics in the performance of their important functions. These, if I am

* It is evident that premature labour could not have been resorted to in these instances, as Dr. Merriman was not called to any of them till labour had actually commenced.

not mistaken, were precisely the symptoms to have been relieved by diminution of uterine bulk: the inspection after death rendering it quite clear, that the abdominal and pelvic cavities were incapable of affording lodgment to three such bodies as the pregnant uterus and the two enlarged ovaries. Let it not be supposed, that I am insinuating that premature parturition, induced when Mr. Hewlett was first called, would have saved the life of this lady for any lengthened period, if at all: the malignant disease of both ovaries forbids such an opinion. Still, it is to be remembered, in the absence of positive knowledge of the malignancy of tumours (a point difficultly determined when they are concealed in cavities), that our best treatment consists in preserving such growths from excitement, pressure, and contusion.

These remarks are quite as pertinent to my own cases, and peculiarly so to the Case No. 2. In this instance, the growths had existed, probably for years, before the occurrence of the unexpected and unwelcome pregnancy; and as there was no pain about the uterus till the sixth month, it may be assumed, that if the development of its cervical portion had been prevented by a premature evacuation of the uterine contents, the softening, suppuration, and almost gangrenous condition of the growths might have been arrested. It is possible that the development of the uterine fibres may be interrupted when large tumours are situated directly within its parietes, and abortion, or premature expulsion of the uterine contents, may thus be induced: nor is it difficult to understand, that fatal hæmorrhage might be the result of the attachment of the placenta near, or partially over, one of these growths.

Another point of importance is, the time when premature labour should be brought on. A variety of circumstances will influence the decision of this question. If the practitioner enjoys the advantage of an early introduction to his patient; if he possesses tact enough nicely to examine the bulk and attachments of the tumour; and if he has accurately noted the first attacks of pain in it, and the constitutional impression produced by them; he will not hesitate much as to the period when he is to adopt this valuable measure. I should not delay, if there were constant pain in or near the growth; if the respiration were embarrassed; and if, as a consequence of these conditions, the pulse were quick and irritable, the extremities œdematous, and the functions of the kidney and skin were partially or greatly obstructed. When such an amount of evil exists, or somewhat before the entire series of these symptoms is complete, the moment has arrived to empty the uterus: and I put forth this opinion with the more confidence, as I conceive that pregnancy will rarely give rise to this amount of mischief till the sixth or perhaps nearly the seventh month of gestation; when, if turning shall be required, it may be accomplished with only the usual difficulties and hazards. One of my Cases (No. 2), will demonstrate the almost insuperable difficulty of determining whether pregnancy exists or not: and I need not say, that this knowledge is indispensable, before the decision, as to the employment of this remedy, can be arrived at. Such extreme obscurity is excessively rare; nor will it invalidate the worth of the measure now recommended.

In conclusion, I hope I may regard as established the positions advanced in the commencement of this paper: at all events, I have done what I could to meet the views expressed in the following observation of Dr. Merriman:—"It seems evident, that tumours within the pelvis, obstructing delivery, are of no very uncommon occurrence; and that when they have been detected, much doubt has been entertained respecting their nature, and the proper method of treating them. It is, then, of importance, that the attention of practitioners of midwifery should be directed towards this subject, in order that they may be guided by rational principles in the future management of such incidents."—*Guy's Hospital Reports, No.* 2.

ST. THOMAS'S HOSPITAL REPORTS.

Syphilitic Eruptions treated with Hydriodate of Potass.

Joseph Lawrence, æt. 17, tailor, was admitted into King's Ward, under the care of Dr. Williams, June 19th, 1834.—Of rather intemperate habits. States that, about eighteen months since, he had a chancre on the penis, and a bubo on each groin; for which he took mercury, and his mouth was kept sore for some weeks. Under this treatment the chancre quickly healed, and the buboes dispersed. About a month after the sore had healed he was attacked with sore throat, pains in his limbs, and an eruption of a pustular kind, appearing chiefly about the legs: in consequence of which he was admitted into the hospital under Dr. Williams's care, and remained there for five months; during which time several pieces of bone came away from the nose and pharynx. He was treated with hydriodate of potass, and left the hospital quite well. About a fortnight or three weeks after, however, the pains in his limbs returned, the throat again became sore, the nose swollen, and a piece of bone in progress of separation, when he was readmitted.

He complains of great pains in the limbs, which increase so much at night as to prevent his sleeping. His tonsils are red and swollen, and each has a large deep sloughy ulcer upon it, accompanied with slight

superficial ulceration of the back of the pharynx. He has upon his back an indolent ulcer with a dark coppery-coloured margin, which is the remnant of an old pustule. The testicles are painful and tender. These symptoms are accompanied with slight constitutional fever: he is usually thirsty, has a furred tongue and bad appetite, and sometimes perspires much at night. Ung. Hydr. Nitr. Oxyd. gutturi applic.

June 21.—Much the same. Garg. Acid. Mur.

July 5.—Throat much improved: the pains in the limbs much the same. An eruption of an exanthematous character has made its appearance, chiefly about the arms, breasts, and insides of the thighs, consisting of patches, small, separate, and of various figure—not much unlike measles or scarlatina, in some places being somewhat elevated and accompanied with slight itching and smarting; it is of a hepatic brown colour, and becomes much more distinct on rubbing the part. ℞. Pot. Hydriod. gr. viij ex Mist. Camph. ter die.

July 11.—The pains are less severe. He has a considerable discharge of yellow mucus, tinged with blood, from the nose, for which he was ordered to inject Lot. Hydr. Cin.

July 15.—Pains considerably diminished, and he now sleeps well at night. The eruption is not quite so fresh, but is still visible about the chest and arms. Potass. Hydr. gr. x ter die.

Under this treatment he continued improving, and by

Sept. 20.—The throat was nearly well and the pains trifling.

Oct. 1.—His throat is now well: the eruption has disappeared, and the pains in his limbs have entirely left him. But a little discharge from the nostrils continuing, he remained in the house till

Oct. 14.—When he was discharged perfectly cured.

Reviews.

A Treatise on the Prevention and Cure of Pulmonary Consumption. By Robert Little, M.D., Professor of Midwifery in the Royal Belfast College, Consulting Physician to the Belfast Hospital, &c. 8vo. pp. 160. London: Longman & Co. 1836.

We resume our review of this work with pleasure, as the author examines the conclusions of all modern authors, and gives a most graphic account of the formidable disease of which he treats. We entertain so high an opinion of this unassuming and excellent production, that we strongly recommend it to our readers, both at home and abroad. There is a vein of good sense and faithful observation through every part of it, which reflects great credit on the skill of its author.

He observes that we must duly estimate the local and general symptoms of phthisis, with the signs afforded by auscultation and percussion, before we can arrive at a correct conclusion as to the existence of the disease. Every experienced medical practitioner will agree with him in this opinion. He observes:—

"Although cough is generally one of the earliest local symptoms of tuberculous disease of the lungs, yet it will be found to vary much, with regard both to its severity and general characters in the same stage in different individuals, and in the same individual in different stages. It is sometimes the case, that a very considerable portion of either one or both lungs is in a tuberculous state long before there is any cough to arrest the attention; and at other times, the cough will be found to be exceedingly troublesome from the commencement of the tubercular formations. The fact is, that during the early stage of consumption, in a large proportion of cases, the cough proceeds more from the state of the mucous lining of the air-tubes of the lungs, than from any other cause; so that it is, in a very large number of such patients, a catarrhal symptom in no way connected with the morbid formations in question. The circumstance that cough is sometimes for weeks together scarcely perceptible during the early stage of consumption, and that its returns are frequently produced by slight exposure to cold, is sufficient to show that it is a symptom more owing to a diseased state of the mucous lining of the larynx, trachea, and ramifications of the bronchi, than to the presence of tubercles in the lungs."

We entirely agree with our author in this portion of his pathology, and have had ample proof of its correctness. A remarkable case in point fell under our notice very lately. A most industrious and indefatigable student of our class was seized with very slight cough, emaciation, and profound debility. The cough nearly ceased, but the pulse was rapid; the general health greatly impaired, and the prostration of the vital powers was excessive. On examining his chest with the stethoscope and by percussion, it appeared to us he laboured under phthisis, and that there was a cavity in the upper portion of the left lung. A consul-

tation was recommended, though the patient, who had been preparing for examination at the Apothecaries' Hall, as well as many of his fellow students, equally advanced as himself, saw no danger. Dr. Davis, of Broad-street, saw him, and agreed with us in our diagnosis. Our patient was ordered a short distance out of town, for change of air, but our opinion was that he would die in less than a month—a prognosis which was, unfortunately, too correct. In this case the cough had ceased, but the emaciation was progressive, and the prostration extreme. Many similar examples might be mentioned, but enough has been stated to convince junior practitioners that the usual symptoms of consumption may be occasionally delusive.

The symptoms of phthisis are minutely given by our author, as appears by the following description:—

"When the softening in pulmonary tubercles has once taken place, there is then an ulcerative process established between them and some neighbouring bronchial tube or tubes for the purpose of giving exit to the matter. Now, when this is going on, there is usually a considerable degree of irritation both from the ulcerative inflammation of the bronchi, and from the purulent matter which is making its escape through the perforations to which the ulcerative process has given rise in the air tubes. It will be found, in fatal cases of consumption, that the mucous membrane, from the larynx to the extreme ramifications of the bronchi, exhibits signs of disease; so that, no matter whether we consider pulmonary tubercles in their primary or secondary stage, we are to regard them as being frequently connected with more or less disease of the mucous membrane in question, independently of any effects which they produce.

"Difficulty of breathing is one of the earliest symptoms of tubercles in the lungs. This is, however, more particularly the case when what is denominated *tubercular infiltration* has taken place, or when the morbid growths are in close approximation to each other, or else when they occupy a considerable portion of either one or both lungs. It is mostly the case, that difficult or hurried breathing occurs only, in the early stage of consumption, when a person ascends a height, or takes more exercise in some way than usual; but, in proportion as the disease advances, and as the air cells of the lungs are rendered impervious to the air, in the same proportion the number of respirations, in a given time, becomes more and more numerous; so that, by the frequency of their repetition, a kind of compensation may be made for the smallness of the quantity of air admitted into the pulmonary cells during each. From long and close observation, I am perfectly satisfied, that a hurried or difficult state of the breathing is far more indicative of the presence of tubercles in the lungs than cough, to which much more importance is generally attached. It will be found, even when there is only a very small portion of the air cells of the lungs impervious to the air, that the breathing becomes sensibly hurried in a person of consumptive habit of body. This is owing to the small capacity of the cavity of the chest, which is commonly to be met with in such habit; in consequence of which, the lungs cannot suffer even the slightest further diminution in their bulk, without giving rise to the effects in question.

Much importance has been attached to the character of the expectoration, but modern pathology has shewn the fallacy of former opinions on the subject. Every observant practitioner will agree to the accuracy of the succeeding remarks:—

"The appearance, consistence, and quantity of the matter expectorated during the progress of tuberculous disease of the lungs, are subject to the greatest variety; and this must necessarily be the case, on account of the great difference that there is at various stages, with regard both to its causes and source. At that stage of the disease when the tubercles are in a crude state, the matter of the expectoration is yielded altogether by the mucous lining of the larynx, trachea, and ramifications of the bronchi; but, when the process of softening has taken place, it is then a kind of compound fluid, partly derived from the mucous membranes just mentioned, and partly from the caverns formed after the discharge of the softened tubercles. It would be quite impossible to give any description of the appearance of the expectoration, in consumption, that would be applicable to different patients at the same stage. For instance, the expectoration will sometimes, while the disease is in its incipient state, have the appearance of the white of egg mixed with water; and at other times, it will be opaque, and, at the same time, quite thick. The truth is, that, during the presence of tubercles in the lungs, the expectoration is precisely the same before the process of softening has taken place in them, as what occurs in the different stages of catarrh; but after the process of softening there is, in almost all cases, a considerable change both in its colour and consistence. As soon as caverns are formed in the lungs by the discharge of the morbid growths just referred to, there will sometimes be a mixture of blood with the matter expectorated;

for, although this may be the case at a very early stage of the disease, or even before any such disease has taken place, yet it will be found, in the great majority of instances, it is from the caverns in question that pulmonary hemorrhage proceeds.

"There is sometimes, during the last stage of consumption, a kind of ash-coloured matter expectorated, which is generally considered as quite characteristic of the disease. I do not think, however, that such is really the case; for I have seen, in some instances, the matter expectorated in chronic bronchitis, present precisely the same ash-coloured appearance. I have had, in several patients, an opportunity of examining the state of the lungs after death, when the expectoration presented the appearance I have now mentioned; and I found in the great majority of them, that, with the exception of very slight ulcerations in different parts of the mucous lining of the trachea and ramifications of the bronchi, the rest of the pulmonary organs exhibited no symptoms of disease. There is, of course, in addition to the ulcerations in question, a relaxed, and, at the same time, a congested state of the lining membrane, sometimes of the trachea, and, at other times, of the bronchi, or both these parts. The only circumstance which renders the matter expectorated really characteristic of consumption is, that of its containing tubercles in a half-dissolved state."

It is now well known that there will be a purulent, and occasionally a fœtid secretion in bronchitis and ulceration of the pulmonic mucous membrane, independently of tubercular phthisis. The diagnostic signs afforded by auscultation and percussion, together with a careful appreciation of ordinary symptoms, will, in general, lead to a correct conclusion. Our author's observations on this important point deserve attention.

"The signs afforded by the percussion of the chest are certainly of the greatest value in the elucidation of tuberculous disease of the lungs, if they be studied in connection with those obtained by auscultation, and also with the general and local symptoms. When tubercles are few in number, and when they are situated at a considerable distance from each other, there is very little change produced in the sound of the chest; but when, on the contrary, they are closely connected, or when tubercular infiltration has taken place, there is a diminution of sound in proportion to the extent of the solidified part of the lung. There is certainly far more information to be gained by percussing corresponding portions of the chest, than there is by striking only one part, and comparing it with what might be considered a healthy sound for such part. The truth is, the same situation will yield, in different chests, the most opposite sounds; so that there is no possible way of coming to any thing like a correct conclusion, except by trying what sound is yielded by corresponding portions of the same chest. It is not only necessary to percuss corresponding portions, but it is requisite to do this at intervals of one or two days, for several times in succession. This is, in fact, a thing that is quite indispensable, because a very slight difference in the vascular condition of the lungs will produce a sensible difference in the clearness or dulness of the sound of a corresponding part of the chest. During inspiration it will yield a much clearer sound than during expiration. I am afraid that this circumstance is too little attended to in practice; and in consequence of which, many mistakes must be committed as to the real state of the lungs. When the stomach and bowels are much distended with any solid matter, there will also be, in most cases, a great reduction of the clearness of the sound of the part in question.

"Auscultation, considered apart from any other means of ascertaining the presence of tubercles, or of the caverns which are left in the lungs after their discharge has taken place, is certainly most deceptive; for, like percussion, it is of very little use as a diagnostic means in the early stage of consumption, unless the tubercles, by their number, and the closeness by which they are connected, render a portion of the lung impervious to the air. It is, however, very seldom, except in cases of tubercular infiltration, that these morbid growths prevent the free circulation of air through the lungs, until a considerable time after the commencement of their formation; and hence the sounds communicated to the ear through the stethoscope will be, in the great majority of instances, not at all indicative of any disease. The cases in which tubercular matter is deposited in such a manner in the pulmonary substance as to give rise to complete solidification, are comparatively very few. In those patients where the morbid growths in question are remote from each other, or are few in number, and are, at the same time, situated far from the surface, I do not think that the instrument which I am now considering is of much assistance in forming a diagnosis. In the advanced stage of consumption, the stethoscope is, I do believe, considered by many as an almost infallible auxiliary in this respect. I am quite convinced, however, that such is not the case; and, notwithstanding all that has been said in its favour during that stage, still I would be much inclined to think, that, in a great proportion of cases, it will be found a deceptive means in the hands of even the most experienced physician."

A preponderating majority of modern practitioners consider these means of diag-

nosis indispensably necessary; while a few, from prejudice, laziness, or physical defect of audition, think them useless. There are always persons opposed to new inventions and discoveries, but their opposition rarely prevents the advance of improvement in any science. For our own parts, we are thoroughly convinced that the medical practitioner who is unacquainted with the phenomena discoverable by auscultation and percussion, cannot form a correct opinion on the nature or treatment of a multitude of thoracic and cardiac diseases. The diagnosis of these diseases can alone lead to the employment of efficacious remedial measures when relief can be afforded. The mode of detecting phthisis is thus summed up by our author:—

"From all that has been said relative to the local and general symptoms, and also the signs afforded by percussion and auscultation, it would appear that there is no single symptom or sign that can be depended upon, or that can be truly regarded characteristic of the presence of tubercles, or of tubercular excavations in the lungs. It is therefore only by a correct knowledge of the different morbid symptoms, their duration, and the temperament, age, and habits of the patient, that the physician will be enabled to judge with any degree of accuracy, as to the nature of the disease. Even after all this, he will be unable to come to any thing like a correct conclusion, unless he attach to every sign or symptom only a very limited degree of importance, and rather form his opinion from a careful consideration of the whole. When this mode of studying the different symptoms is pursued, there will not be more than one case in a hundred where a medical man who has devoted a sufficient degree of attention to the subject of consumption, will not be enabled to distinguish it from chronic catarrh, or any other disease of the lungs. This however, he certainly would be quite unable to do, were he to omit even the most trifling symptom, no matter whether that should be of a general or local nature. In studying the symptoms of maladies which are of a hereditary nature, a great degree of assistance may be afforded by the history of the patient and his relatives. This historical information will be particularly valuable before the local and general symptoms become so far developed, that they can afford any sure indications of the nature of the disease."

In these remarks we recognize the observant practical physician, and the well-informed pathologist. The force of his statements will appear when we arrive at his modified treatment of the disease under notice, and its various complications.

The London Medical
AND
Surgical Journal.
Saturday, April 16th, 1836.

THE DEATH BY MORISONS PILLS.

THE agent of Morison, who was convicted at the late Old Bailey Sessions of the manslaughter of Captain Mackenzie, came up on Saturday last for judgment; when the Recorder, after a very just and severe rebuke, informed the prisoner that he was fined 200*l.*, and would be confined in Newgate until such fine was paid. The fine was paid *instantly*, and the prisoner discharged. Of course, it was paid instantly—as it could be well afforded from the enormous fortune which has been amassed on the ruined health and happiness of thousands, on the tears of the orphan and of the widow, and of the sufferings of the deluded and distressed. The practice of our law, as regards the punishment of manslaughter in these cases, is as anomalous as it is unjust. This was a premeditated act—a killing for gain; if this is to be punished by fine, we should like to know why a poor man is transported for life or confined for one or two years for the same offence. It is said in the newspapers, that the sentence produced a considerable sensation in the court; surely not because it was too severe—or if so what was the audience composed of—it must be of the traffickers in the wholesale poison system, or of some of its deluded supporters. Surely such exhibitions as these trials afford of the murderous properties of these universal pills, will have some effect in overthrowing such a fearful system.

The fine of 200*l.* on a rich man was as severe as that of a shilling on an humbler member of the community; though we seldom hear of a poor man found guilty of manslaughter let off without more or less imprisonment. Our law sounds well in theory, but is often most unreasonable and unjust in practice. Thu

defines ignorant mal-practice to be "that which has for its object the practice of medicine, surgery, or pharmacy, without due information and legal authority. This is a great misdemeanour at common law, whether in a licensed or an unlicensed practitioner, and is punished by fine and imprisonment." The empirical manslaughterer of Captain Mackenzie perseveres in exhibiting Morison's poison in the dose of twenty, and five-and-twenty pills at a time; incessant vomiting and other symptoms of inflammation of the stomach supervene; and to remedy this, a table-spoonful of the pulverized pills is exhibited by the rash and inhuman empiric! Two medical practitioners are called to see the sufferer, and they declare that he is dying. The ignorant pretender to medical knowledge represents himself as an educated surgeon, and on finding medical aid was obtained takes alarm, brings the notorious hygeist humbug, Dr. Lynch, to see the patient; but the friends refused to admit this left-handed son of Hygeia. Captain Mackenzie is destroyed in the prime of life, and in perfect health, by Morison's poisoning agent, who is fined 200*l.* for taking away the life of a fellow citizen. This verdict, however, will give a severe blow to the Universal Vegetable Pill System, and deter many from taking poison. A few more trials for manslaughter must ruin the trade of the hygeist knaves who so inhumanly detroy many of the crowd of fools that are duped by them. As to punishing these gentry by fine, it is an insult to common sense and justice; and as to reprimanding them from the bench, it is a useless task. Let the next of them be sent to the tread-mill for a year or two, or transported like similar malefactors, and the fraudulent impostors will be adequately punished.

It was only after repeated trials for manslaughter that St. John Long found himself deserted and his knavery exposed. The same awaits Morison. His agents will be deterred from urging his nostrum, lest it cause fatal ulceration of the stomach and intestines. The most gullible of his stupid patrons will hesitate in swallowing dozens of pills at a dose, which are proved to have destroyed life.

THE NEW UNIVERSITY.

All is yet obscurity with regard to the New University; surmises of various descriptions are abroad; none of them, we believe, are at all authentic. All as yet seems to be confined to the bosom of the Chancellor of the Exchequer. It is useless speculating as to what may be the contents of the charter of this new institution, though we think it right to express and we have expressed—our opinion, on many occasions, as to what they *should* be. As we have repeatedly urged, any monopoly in the matter will be fatal to it; will make the disease afflicting the medical corporations worse, instead of acting as a check to it. It must be a full, fair, open field for the encouragement and display of talent and ability, whilst it must give no man an advantage over another. The granting of such advantage is so opposed to the principles of justice itself, that it needs only to be mentioned to be at once acknowledged as fact. We say then, that if the New University should grant peculiar privileges to any set of individuals, or to any particular establishment, that it will admit an injustice of the grossest and most objectionable kind. We are far from being advocates for dispensing with regulations and rules, preliminary education, and the attendance on lectures, but we most unequivocally condemn the granting of a privilege to one or more institutions, at the expense of others. Why, what have been the objections urged against the great Universities? That they give privileges to a particular sect of individuals, that, in fact, they are monopolies. Who shall advocate then, if he be a true reformer, the erection

of another monopoly—the formation of another institution, on the principles and practice of those great overgrown palaces of corruption?

We have said that we are advocates for preliminary education, and the attendance on lectures. It would be wrong to dispense with the system of instruction now going on, however it may be deficient in some particular points; it is quite certain that it is founded on right principles, and a better could not be substituted. With regard to the election of managers to the New College, it is probable, objections will be urged by some parties, whoever they may be, who are honoured with such choice. It is difficult to advise precisely what course should be pursued, but that of truth and openness must not be avoided; it must be remembered that the eyes of the nation are on the matter, and "no hole-and-corner" proceedings will be allowed to pass with impunity.

REMUNERATION FOR ATTENDANCE AT INQUESTS.

We are glad to perceive that several petitions have been forwarded and presented to parliament, for the purpose of securing to medical men a fair remuneration for their attendance at inquests, and for the dangerous and troublesome office of conducting *post-mortem* examinations. The justice of such remuneration is so self-evident, that we wonder it could have ever been opposed; no reasonable person would think of opposing it: there is no limits to the unreasonable conduct of some persons. We feel convinced that a just and proper remuneration will and must be granted by a reformed parliament.

DR. HANCOCK AND MR. BATEMAN.

The question between Dr. Hancock and Mr. Bateman relates simply to the use of Dr. Hancock's name upon the stamp Mr. Bateman has affixed to a preparation of Sarsaparilla. We have lately seen a letter from Mr. Bateman to our publisher, inviting the latter to inspect a MS. of a prospectus, of which Mr. Bateman says Dr. Hancock is the author. Our publisher has something else to do than to trouble himself with inspecting MSS. in which he is not concerned. We have nothing to do with Dr. Hancock's choice of expressions—but if it is any satisfaction to Mr. Bateman, the first person of common sense he meets with will assure him Dr. Hancock's use of the word forgery, in his first note in this Journal, has no reference to the handwriting of any manuscript whatever. As to ourselves, there is not one word in our editorial remarks on the audacious impudence of Mr. Bateman's putting forward the name of our gracious Sovereign, and of several crowned heads in Europe, together with those of many of the nobility and of many eminent physicians, who are members of the Medico-Botanical Society, as patrons of his nostrum, that we are not willing, if need were, to repeat. But we trust his joke is too bad, even for a Morisoned public.

MEDICAL SCHOOL OF PARIS.

The author of the following remarks on the Medical School of Paris has been induced to draw them up for the benefit of students intending to prosecute their studies in that capital, in consequence of having himself felt the want of some such guide on his first arrival in Paris. Should they prove useful to such a one, the author's object will be attained.

Although numbers of English students annually migrate to Paris, some with a view of improving themselves, others with no other object than that of passing time until some eligible opportunity offers itself of establishing themselves in practice at home, yet it may be fairly questioned whether more than a very few of either class are ever able to form an accurate estimate of the comparative advantages of the British and French schools. Not a few leave home with a fixed resolution to laud to the skies every thing differing from the practice of their own country, or to close their eyes to the evidence that may be offered on behalf of doctrines or treatment at variance with their own preconceived opinions. Many are utterly innocent of all acquaintance with the language in which instruction is to be afforded; and feeling this ignorance of the language acting as a bar to the profitable employment of their time in the lecture-room, find themselves compelled to profit by the facilities for dissection only, and to neglect all attendance on hospital practice or lectures. From these causes result the various and conflicting statements made by students who have passed a winter in Paris, and who are unanimous in one particular only—that of considering themselves the

best possible authorities of the subjects on which they undertake to pass judgment. Not only have the opinions and practice of our neighbours been misunderstood, but even the more tangible subjects of the proper period of the pupil's course of study at which the visit should be made, the facilities afforded for anatomical investigation, the value and number of the certificates granted by the professors, the amount of fees to be paid, and the actual average expense of passing a winter in Paris, have at different times been greatly under or over-stated.

In the first place, I must give my decided opinion, that Paris, as a school of anatomy for junior students, is in every respect infinitely inferior to the British schools. The reasons for this will appear hereafter. As a school of practical midwifery, too, it is nearly valueless, as no opportunity of obtaining clinical instruction in this branch of the profession is at the disposal of the student, at least until the obstetric wards in the Hospice de la Faculté are opened. For practice of physic it cannot be placed in competition with the schools at home, unless indeed the pupil can profit by the system of trusting to diet and time for the removal of chronic diseases, instead of hurrying the patient to his end by the practice pursued in this country, of cramming him with medicine. For surgery (especially clinical and operative) pathology, physiology, and the collateral sciences of medicine (comparative anatomy and natural history generally), it has probably no rival. Ophthalmic surgery, however, must be excepted, as the French are not equal to our own practitioners in this branch of practice. The best instruction in the treatment of diseases of the eye is to be obtained from some German oculists who have settled at Paris, and who give private courses of lectures on this subject.

The faculty of medicine forms a college or branch of the university, and consists of professors and agrégés. The former are the regular permanent lecturers, the latter supplementary or assistant lecturers: they nearly all give private lectures in the neighbourhood of the school. The professors are twenty-one in number, the agrégés thirty-six. Formerly the professors could only be chosen from the latter; since the Revolution, however, the professorship has been thrown open to all graduates of the university. Both agrégés and professors are elected by concours; of which more hereafter.

The lectures delivered in Paris, then, may be divided into two classes — those given in the school by the professors (for which a small fee is demanded), and those given by private lecturers, agrégés or otherwise, which are for the most part gratuitous. These latter are in many respects preferable to those of the professors; they are more concise and practical. Indeed, the great drawback on the collegiate lecturers is the immoderate length to which they extend their courses: Cruveilhier, for instance, occupying three years on anatomy; Berard two years on physiology. Thenard, of the Sarbonne, carries this to the greatest excess, as he consumes no less than five years in a single course of chemistry. It is obvious, that however scientific such a system may be, and however well it may be adapted to those who have already passed into the grade of practitioners, it can be productive of no advantages to junior pupils, who require rather a succinct outline of what is actually known in a science, than a tedious detail of the opinions of conflicting authorities.

The school of medicine is open to students all the year round, excepting about six weeks in September and October, when no lectures are given. There is no cessation or vacation in many of the private lectures, some of which, especially on obstetrics, are unusually active during the recess.

As the object of this paper is exclusively that of being useful to the pupil desirous of economizing both his time and money, I shall proceed to give him some advice on the line of conduct to be adopted by him on his arrival in Paris.

We will suppose him to leave England in October, the best period of the year; his course will then be nearly as follows. On arriving in Paris, he should proceed to the Bureau of the School of Medicine before the expiration of the first fifteen days of November, and there inscribe his name, age, and residence, in a register kept for that purpose. But in order to be admitted to do this, several things are necessary. First, he has a blank form for his name, age, place of nativity, country, &c.; this he will be required to fill up, and to authenticate with his signature. If he wishes to obtain the degree of doctor of medicine or surgery granted by the faculty, he has to produce the diploma of bachelor of sciences or lettres, which is given at the Sarbonne after a preliminary course of study and examination, a certificate of good moral character from the authorities of his native place, and some one termed a "repondant," to become responsible for his correct conduct during the time he remains at the school. He has also to produce evidence of having attained twenty-one years of age, or, in default of this, a written permission from his father or guardian to enter on the study of medicine. In the case of foreigners, the passport is considered sufficient proof of their having arrived at the required age, without exacting from them an extract from their baptismal register.

The readiest person for the office of repondant—a mere formality in compliance with the regulations—is of course the master of the hotel or lodging-house in which the student resides. He, however, will not be

received—I know not for what reason. This may occasion a little embarrassment to one who is a perfect stranger in Paris; he has, however, only to proceed to the nearest bookseller's shop, purchase a work, and state his difficulty, when it is immediately arranged, the bookseller becoming guarantee for the peaceable behaviour of a person whom he never saw before, and possibly may never see again.

These preliminaries being adjusted, the student should take out his inscription. This, as I have said, must be done before the expiration of the first fortnight in November. Any neglect will be irremediable, as the regulations are seldom relaxed. Should the student design to graduate, he will have to pay fifty francs (two pounds) at the time of inscribing. If he does not wish for the degree, he may take out a lower inscription of thirty francs (one pound five shillings); this will entitle him to the same number of blank certificates as the larger sum. He will also be spared the necessity of being in possession of the diploma from the Sorbonne. These inscriptions must be renewed every three months, viz. within the first fifteen days of January, April, and July. Each gives a right to three certificates, blank forms of which are granted at the expiration of each trimestre. No certificates are required for graduation in Paris; being competent to answer the questions proposed at the examination, and having studied the proper period of time (four years), being considered sufficient evidence of the student having qualified himself to enter on practice. Certificates, then, are kept expressly for foreigners. Although each inscription gives a right to three certificates only, many professors (on the student producing evidence that he has attended the class) will sign testimonials, drawn up on stamped paper, in cases where the pupil has neglected to take out the inscription at the proper time. These written certificates are received by those of our medical corporations who acknowledge foreign certificates at all, equally with the printed ones. In order to their being recognized, however, they must bear the stamp of the faculty, which is affixed to them at the Bureau. Certificates are given gratuitously by the private lecturers, but they are useless, as they do not bear the stamp. This is also the case with those granted at the Sorbonne, College de France, &c. Thus, a certificate from M. Magendie, who lectures at the latter institution, although highly respectable, is not received as an evidence of professional education, he not being a professor at the school.

Although the fees are nominally demanded, yet if certificates are not desired, no difficulty will be experienced in obtaining admittance to the lecture-room, or to the valuable library and museum.

The total expense of the degree of doctor of medicine or surgery, thesis, &c. included, is a thousand francs, or forty pounds, and the length of study required four years. Three years are sufficient for the lower rank of officier de sante, and three hundred and sixty francs are the whole expense. The number of examinations for the former is six, inclusive of the thesis of the latter three. In 1829, the number of graduates was 274. The examinations are rather lax in their character. Four are admitted at a time, and are each interrogated by the examiners in turn. The first examination is held at the termination of the first year's study, and is on pharmacy, chemistry, &c. The second takes place at the end of another year, and embraces anatomy and physiology. The other examinations have reference to the remaining branches of the curriculum. They are all held in public, and are usually attended by other students who are preparing for their own trial. The professors put on their robes and cap, and altogether look very imposing.

The library is very extensive, containing, I believe, near forty thousand volumes, consisting of medical works of all ages and countries. It, with the museum, is open to students four days in the week, from 11 o'clock to 3. Books are not allowed to be taken away from the library: indeed, it is not customary in Paris to carry books home to read, the more usual plan being to subscribe to some of the reading rooms: of these there is a great number in different parts of the city. Several, for the perusal of medical works, are established in the immediate vicinity of the school; they are well attended, as the subscription is moderate. They are well warmed and lighted, and are preferable, in every respect, to studying by the miserable wood-fires in private apartments.

The museum is very splendid; it occupies three rooms: the first contains a great number of skeletons of different races, some of which are healthy, others illustrative of the effects of syphilis, scrofula, &c. Besides the skeletons, it contains a great number of injected preparations, and wax models of the normal and pathological condition of the viscera, and nervous and vascular systems. In the second apartment there is a collection of surgical instruments, bandages, &c. ancient and modern: in this room the greater number of examinations is held. The third division consists of wax models and preparations of morbid anatomy. There are two other rooms, one containing specimens of materia medica, the other the apparatus for the lecture on physics, &c. The public are not admitted into the latter.

The museum is thrown open to the public every Thursday, from 11 to 3. This is a most judicious regulation, as it has a powerful tendency to strip medicine of the mystery thrown around it, and consequently to fami-

ɛarize the public with the necessity of dis-ection. I am happy to believe that some of ur own museums are opened in a similar nanner, and I sincerely hope that it will ave the effect so much desired.

There are two or three modes of living sually adopted by students, each of which as its advantages. First, many live "en ension" as it is termed, that is to say, pay a ertain sum per month for board, lodging, nd attendance. The amount of this varies; n some of the most respectable the demand s from 100 to 150 *fr.* per month (4*l.* to 6*l.*) he next class charges from 80 to 100 *fr.* 3*l.* 3*s.* to 4*l.*) Another still cheaper, from 5 to 80 *fr.* (2*l.* 12*s.* to 3*l.* 3*s.*) The only bjection to this mode of living, is the ne-essity of being punctual at meal times. nother plan is to live entirely in an hotel. his is seldom adopted, as it is the most ex-ensive of any. A third is to take an apart-nent in an hotel or lodging house, and to ine, &c. at a restaurateur's or eating house. he price of rooms in an hotel varies from 0 to 50 *fr.* per month (16*s.* to 2*l.*), or even nore. In addition to this, the porter receives *fr.* per month (2*s.* 6*d.*), for cleaning boots. xecuting messages, &c. The expense of oarding at a trailleur's or restaurateur's is rom 2 to 4 *fr.* per day. Firing is expensive, rood being almost the only fuel consumed; ence the number of subscribers to the eading rooms, or Bureaux de Lecture.

It is customary, at some eating houses, for hose who usually dine there, to pay for a ortnight's dinner, &c., in advance; by this lan from 2*d.* to 3*d.* may be saved per diem. his, I believe, is not so much the case in espectable restaurants.

The student, from the foregoing data, will e able to calculate exactly the amount re-uired for a residence of a year or longer.

The French pupils differ widely from the orresponding clas in this country. Ardent nd zealous in the prosecution of their stu-ies (except when attacked by the mania of olitics), for the most part miserably poor nd wretchedly dirty, they present a strong ontrast to the crowds of well dressed young en who frequent the British hospitals. roofs of their poverty and want of cl an-ness, unfortunately are too conspicuous nd striking to admit of doubt. The breakfast f bread and apples, eaten in the lecture oom, and the threadbare appearance of their pparel, afford ample confirmation of the rimer assertion, and their habit of spitting uring lecture, and filthiness in the dissecting oom, are sufficient evidences of the latter.

Their poverty is no reproach; their filthi-ss might easily be avoided, and is, there-ore, inexcusable.

It cannot be questioned that the students f medicine in Paris, occupy a much lower tuation in public esteem, than their brethren this country; and, indeed, I conceive that very one must admit that the profession generally ranks much higher in England, particularly as respects provincial practition-ers, than in any other country in Europe: this, too, in spite of the bad government and mismanagement of those bodies whose office it is to watch over and protect the in-terests of that profession for which they un-dertake to legislate. It is true that in France there are more honours and places of emolument for those of the profession who have distinguished themselves in the success-ful cultivation of it, than in Britain, and that they who obtain these honours and emoluments, are admitted into the first rate circles more freely than even the most scientific practitioner can ever hope to be here; yet, as a general proposition, it is, I think, undeniable, that the mass of the pro-fession occupies a lower place in society than British medical men do.

The lecturing theatre at the school is a noble room, and is capable of holding one thousand persons. It is frequently crowded, particularly at the lectures of the popular professors. MM. Andral (internal patho-logy), Orfila (chemistry), and Richard (bo-tany or natural history), are instances of this. Lectures last, as in this country, one hour, and are delivered three times a week.

The number of inscriptions in 1830 was six thousand five hundred and sixty-nine, giving about one thousand six hundred students, independently of between two hundred and three hundred, who, in conse-quence of being unable to pay the fees, were allowed to study gratuitously. The number of this latter class has been con-siderably increased since the Revolution, Polish and other political refugees being admitted to gratuitous attendance.

There are two large establishments for dissecting, which together are capable of ac-commodating many hundred pupils. They are well built, and admirably supplied with water. Subjects are cheap, even when not numerous. Those unopened are sold for 6 *fr.* (5*s.*), the others, which have been ex-amined, may be had for 3 *fr.* (2*s.* 6*d.*) I have said that Paris is not a good school for junior students in anatomy; my reason is this. There are no demonstrators to direct him, or to be at his elbow, with the advice of which he stands in need. It is true that there are two prosecteurs constantly in the establishment, who will give any explanation required, but to obtain it, the student has to quit his table, and to cross the open court-yard to them, leaving his scalpels to the mercy of his neighbours. The police, too, visit the pavilions every day after they are closed, and direct any thing to be thrown away which may appear offensive to their senses. A junior pupil will find it to his advantage to avail himself of the assistance of one of the dressers in the hospital, who are usually tolerable anatomists, and who undertake to direct the studies of others for

about 25 *fr.* per month: I believe the average is much less than this. By this arrangement, the advantage of a regular supply of subjects, too, is insured, as the dressers have all a right to a certain number of bodies per annum.

The medical officers of hospitals all receive small salaries, and are elected by concours. An interne or house dresser gets about 1*l.* per week, besides lodging. A surgeon or physician receives 1000 *fr.* per ward per annum. The externes or non-resident dressers have no salary.

No fees are demanded for hospital attendance, nor is any formality necessary in order to obtain admittance at the time of the visit. Except at the Hotel Dieu, where a ticket of admission is required, the pupil has only to walk in, and he will meet with neither let nor hindrance. Certificates are given for medical and surgical attendance, with no other expense than that of the stamp on which they are written (3½*d.*) They should be taken to the mayor of the arrondissement or district, to have his signature affixed, or to be legalised. For this nothing is charged.

The visit to the hospital takes place at 6 o'clock, A. M. in the summer, and at 7 in the winter. These hours are fixed by government regulations. Their advantages and inconveniences are obvious. It certainly cannot tend to the melioration of a patient, to have his rest disturbed by the glare of a candle at 7 o'clock in the winter, when possibly he may not have slept a moment during the night. On the other hand, it leaves the day entire for private practice.

Both physicians and surgeons are attended by a clinical clerk, and by one of the pupils in pharmacy attached to the hospital. It is the duty of the former to note down the symptoms and progress of the case, of the latter to write down the diet and medicines ordered. This last is a very simple business. Eau de gomme, eau lucrée, strict diet, and enemata, forming nearly the whole of the dietetic and medical treatment. To these, however, must be added the frequent employment of the bath. It must immediately strike any one, that the most powerful agents in combatting inflammatory diseases are voluntarily given up, and unlimited confidence placed in starvation, and la medicine expectante. Purgatives, venesection, and mercury, are entirely banished from the prescription book. The consequences of this inert practice, are the deaths of many patients, who, in the hands of an English practitioner, would have unquestionably recovered. So far do they carry this doctrine of non-intervention, that I was informed, upon good authority, that M. Louis, of La Pitié, seriously remonstrated with an English dresser, who bled a patient labouring under pneumonia, for having prevented him from watching the progress of the disease by cutting it short! For these reasons I think my position good, that Paris is not a superior school for practical medicine.

The hospitals are placed under the superintendence of a central board, which is daily furnished with the number of the beds vacant in every hospital. All patients have to apply to this board before they can procure an order for admittance. The advantages of this arrangement are very great; by it calculous patients are sent to M. Civiale at the Necker, consumptive cases to M. Louis at La Pitié, &c. The members of this board are all medical men, and all receive salaries.

The pupil will find that many remedies constantly in use in France, however excellent they may be, can never be brought into extensive practice in this country; such are leeches to the anus, and the frequent exhibition of enemata in place of purgatives.

For pathological researches he will meet with an unbounded field, almost every body being examined (not merely opened) after death. The degree of minuteness with which morbid appearances are noted down and compared with symptoms during life, is truly exemplary. When in the medicin wards, the pupil will, of course, avail himself of the opportunities for learning the application of the stethoscope to chest disease. In surgery we are supposed to be surpassed by our neighbours, in the attention paid to preparing a patient by diet for an operation; if this be the case, we are as certainly superior to them in the after treatment and dressing. The French have been accused of operating in cases where a British surgeon would save the part by local or constitutional means. I am not prepared to vouch for the accuracy of this opinion. French surgeons are very dexterous in operating, and in forming a correct diagnosis. The chief blots in their surgery are the rarity of healing a wound by the first intention, and the total absence of any thing like sound medicinal treatment. What would be thought of a surgeon in this country, who would cram ℥ iv of lint into the wound made in operating for hernia? And yet this is the usual treatment in Paris.

Courses of operative surgery, bandaging &c., are given by private lecturers: they should be attended by every student after he has acquired a certain amount of anatomical knowledge. M. Richerand is the professor of this subject in the school of medicine; the private lecturers, however, are of much greater advantage to the pupil, as he has the opportunity of performing every operation two or three times on the dead subject, and of applying bandages on both the dead and the living. The fee for this subject is 25 *fr.* (1*l.*)

There is no obstetrical establishment accessible to students. La Maternité being exclusively for females. The Hospice de la Faculté, however, will remedy this defect

Practical midwifery cannot be had, as in this country, by attending women at their own houses: the usual mode is this. When commencing a course of obstetricy, the lecturer announces to those pupils who wish to see the practical application of the principles laid down in the theoretical lectures, that they must give in their names and address, and deposit 25 sous (1*s.*), the price per case. For this sum the lecturer engages to send to each student when a woman announces herself in labour. The woman, finding herself becoming ill, repairs to the amphitheatre, there to be delivered. Notice being given to the students, they all hasten to the lecture room, and wait the arrival of the professor. When he comes, he makes an examination per vaginam, and reports to the class the stage of labour, the probability of it being over, &c. The names of the students are then written on slips of paper, and placed in a hat. The two first drawn, have the office respectively of assisting at the birth of the child, and in the removal of the placenta. The one who gains the former, has, in addition, to convey the woman, after the labour, to her own residence, or to an hospital, if she prefer it.

When the pains become urgent, she is laid flat on her back on a moveable bed, significantly enough termed the lit de misère, her clothes are turned up, and the fortunate student takes his place. When the child is born, he gives way to his successor, and the professor occupies the interval between the uterine contraction, to give a short clinical lecture on the case. The placenta being expelled, the woman is allowed to lie a short time; a fiacre is then procured, and she is conveyed to her residence or to the hospital.

The number present at some of these accouchemens is sometimes very great; I have seen nearly a hundred students and midwives in the amphitheatre of M. Hatin, Rue de la Harpe. In the conduct of midwifery cases, at least, we differ from our neighbours.

The student, in commencing his attendance on the obstetrical lectures, commonly inscribes his name for a course of examinations per vaginam, in order that his finger may become accustomed to the information communicated by the os uteri, &c. both in impregnated and unimpregnated women. These examinations, when well conducted, are unquestionably of great utility to the student. The sum to be paid is small, varying from 5 to 10 *fr.* For this, an opportunity is afforded of making examinations on forty different women. The lecturer, passing his finger up first, states the result of his examination, and the students endeavour to find the same.

These examinations are held in the lecture room, every evening immediately after the lecture.

A course of manœuvres on the artificial pelvis, including the application of the forceps, &c. may also be had. The fee is from 5 to 10 *fr.*

Every private lecturer pays 160 *fr.* per annum for their permission to lecture. Their license may at any time be recalled by the Dean of the Faculty.

The Parisian hospitals are nearly all badly situated and badly ventilated. The Hotel Dieu has an arm of the Seine running between its wards. In fact, there is scarcely an hospital which does not require pulling down and rebuilding. The rate of mortality is said to be highest at La Charité, although it is kept beautifully clean.

ALPHA.

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 9th, 1836.

DR. ADDISON, PRESIDENT.

Paralysis—Bleeding in Pneumonia.

DR. LEONARD STEWART inquired what would be the prognosis in the following case. A lady, a patient of his, 63 years of age, had been subject to paralysis agitans for forty years; during that period she had frequent slight attacks of paralysis of various portions of the system; but these she generally got rid of in a short time. After breakfast, on Saturday last, she had a slight apoplectic attack, from which, in the course of two or three days she recovered, except from a total paralysis of the muscles of the tongue and those of deglutition. What prognosis would be given in such a case?

Dr. JOHNSON, who a short time since related a case bearing a great similitude to the present in many respects, and which terminated fatally, now related the *post-mortem* appearances which were observed. The membranes of the brain were rather inflamed, but not more than might have been expected after death from hunger—there was no disease of the brain itself. On turning up the base of the brain, the pons varoli and some of the adjacent parts were found to be softer than natural, considering the remarkable firmness of the other portions of the brain. The cause of the disease soon became apparent—the left vertebral artery was aneurisymal, and nearly as large as the carotid, and pressed on the origins of the 8th and 9th pair of nerves; on tracing the 8th nerve on the diseased side, it was found to be stretched round the aneurism. This Dr. J. considered sufficient to account for the remarkable symptoms which had presented themselves: for though the functions which were suspended had two nerves concerned in their performance, he conceived that the absence of the power of one of them was sufficient to prevent those functions going on. The vertebral artery of the opposite

was so much diminished in size as to be scarcely perceptible. He had lately attended an old gentleman who had suffered from three attacks of apoplexy; in the first instance, he laid in articulo for the space of fifty hours; but recovered at the end of that time, by evacuating very large quantities of bilious matter from the bowels. He had a second attack three months since, which was followed by paralysis of the left side. From this he gradually recovered—and he was now getting convalescent from a third attack with paralysis, on the same side. If there was only paralysis of the tongue in Dr. Stewart's case, he (Dr. J.) considered the prognosis would be favourable.

Dr. STEWART replied, that the paralysis not only affected the tongue, but the muscles of deglutition also.

Dr. WEBSTER was called on for his paper on Blood-letting in Inflammation of the Lungs. The object of the learned author appeared, as far as we could judge, to be the wish to establish an analogy between the attacks of inflammation of the organ of respiration, as now exhibited, with those which were observed by Huxham after the epidemic of 1743; that celebrated physician having noticed that for three or four years after that period, inflammatory affections did not require so great an abstraction of blood as they did in former years, though they exhibited all the symptoms in as aggravated a state. Dr. Webster considered that the epidemics which had affected the inhabitants of this country during the last three or four years—the cholera and influenza—had imparted to the atmosphere such a power, that inflammatory diseases partook now, more of the character of debility than they had done before; and that the large abstraction of blood in a great number of cases, which exhibited all the symptoms of inflammation of the lungs, instead of being attended with beneficial, would often lead to dangerous, and even fatal results. The Doctor related two cases in support of his opinion; these cases had occurred in his practice, as physician to St. George's and St. James's Dispensary. These cases he considered to exhibit all the symptoms of inflammation of the substance of the lungs; he had not examined them with the stethoscope, but the symptoms which presented themselves were those he considered perfectly demonstrable of the presence of the disease. In the absence of stethoscopic signs, and from the description given by the author of the paper, Dr. Addison seemed to consider them more as instances of bronchitis than of pneumonia. In these cases, however, Dr. W. considered that blood-letting had been attended with bad consequences; they were both protracted cases, and had not in the first instance come under his care. Each of the patients had a cold clammy skin, but a quick and full pulse. We state the object of the paper as concisely as we can, by saying that it was intended as a caution to the profession in adopting blood-letting to a great extent in some cases of "pneumonia," which appeared to be of a very active kind, but which were in fact attended with great debility, from atmospheric influence.

Dr. JOHNSON was sorry that Dr. Webster had not stated the physical signs in the cases which he had related, as there must remain some doubt as to their precise nature. He was convinced that the doctrine broached by Dr. Webster would be a very dangerous one for the younger branches of the practitioners to follow. If we were not to go by the symptoms of disease as laid down by the experience of ages, what were we to go upon? He (Dr. J.) was certain that nothing was so good as blood-letting in cases of inflammation of the lungs, to relieve the urgent symptoms.

After some further conversation, in which nothing important was elicited, the Society adjourned.

Pilula Mica Panis.

The "Morning Chronicle" report states, that "Sir F. Pollock asked Mrs. Mackenzie, if she had ever given her husband, the deceased, any BREAD PILLS?" The medical men who were present, says the "Lancet," could scarcely keep their gravity.

NOTICES TO CORRESPONDENTS.

We have to apologize for some typographical errors in our late Numbers. Easter holydays are observed by printers: and many of our friends write as illegibly as if they intended no one should decypher their manuscripts. Others never point their sentences, more never arrive at a period, and some never use a capital letter except in proper names. We make these observations, as several communications have lately reached us, the names of whose authors could not be made out, and half their sentences might be supposed to be hieroglyphics. The late Mr. Cobbett observed to one of his sons, while abusing careless and hastily written productions "Always remember, whatever you write somebody is to read it; and therefore write plainly."

W. E.—We cannot insert changes of style as errata.

The *Obstetric Plates* will appear regularly in future.

Errata.

Page 234, line 20 from bottom of first column, *for* "leading" *read* "tending;" line 3 from bottom, *for* "Macfadyer" *read* "Macfadyen;" second column, line 5 from bottom *for* "ventricles" *read* "ventricules."

THE

London Medical and Surgical Journal.

No. 13. SATURDAY, APRIL 23. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,
BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE VI.

Inflammation.

Febres (fevers), phlegmasiæ (inflammations), exanthemata (eruptive diseases of an inflammatory or febrile nature), hæmorrhagiæ (discharges of blood) and profluvia, natural discharges increased or rendered malignant), are the five orders of Dr. Cullen's first class of diseases; but according to the arrangement proposed, I am at this time to confine myself to inflammatory and hæmorrhagic affections—fevers being rather secondarily than primarily derangements of the blood-vessels—rashes being of a specific nature—and those increased discharges, principally from mucous membranes, which are designated profluvia, being more properly the subjects of consideration when I shall be treating of affections of parts. I now therefore proceed to notice the general pathology of the circulation.

More blood, it has been remarked in a preceding lecture, may circulate through a part or organ, than such part naturally, or in an orderly way conveys—and this may be continued to such a length as to proceed beyond mere temporary excitation and flow;—from this excitation, in other words, inflammation may come to be established, the rationale of which disordered state I am now called upon to investigate.

What, then, are the constituents of inflammation? The term, like many others in medicine, is exceedingly vague. Inflammation cannot perhaps properly exist without the consentaneous existence of increased heat. Now, to this augmentation of temperature we attach almost involuntarily the idea of excitation, and hence the expression to inflame or grow hot, which, both in literal and metaphorical language, indicates an increase of activity*.

Inordinate action, however, both partial and general, may be present, and consequent heat, without that species of irritation being induced, which by common consent would be named inflammation. Of this we have an example in the heat of fever, or in a temporary glow resulting from unusual exercise; it follows, therefore, that neither vascular excitement nor inordinate evolution of heat is of itself equal to the constitution of the inflammatory state—and other circumstances must necessarily be sought for, as essential to the derangement in question.

By some we are told that inflammation can only be present when there is a new production or secretion of fresh fibre. Thus Dr. Darwin: "The extension of the old vessels seems rather a consequence than a cause of the production or pullulation of new ones; for the old vessels may be excited—mark, *merely* excited, with unusual energy, or enlarged without any production of new ones—as in the blush of shame or of anger."

It appears, however, to my conception, that Dr. Darwin in this announcement seems in some measure to confound the effect with the cause of the phenomenon. That inflammation is attended, or, at least, quickly followed by the creation of new fibres and new vessels, I shall immediately disclose, but, that these new parts are rather the products than the sources, or essential characteristics of the disorder, may be made, I think, sufficiently evident. For example, when a blush of shame, or of fear, or of

* Fevers might, upon this principle of nomenclature, be called inflammations—for heat is often much more abundant in the former than in the latter. This word, however, inflammation, must, like many other nosological terms, be received, in spite of its vagueness, since it is much easier to find fault than to find names; and changes of terminology, unless made in a very gradual and satisfactory manner, are likely to effect harm rather than promote precision.

anger, overspreads the cheek, we have certainly an excitement, and an enlargement of vessels—but we have not what has been called in the schools *error loci*—that is, there is no filling of capillaries with red blood, which fluid finds a difficult transmission through these small vessels, and therefore there is no resistance of such vessels to the impulse, and no consequent disturbance of a permanence beyond the permanence of the excitement; *that* being over, every thing falls readily and rapidly into its ordinary course.

Let us imagine another case. Suppose the eye to be suddenly and unexpectedly subjected to a strong light—an increase of nervous, and by consequence of vascular action is the necessary result. In other terms, the fibres of which this organ is constructed are, for a time, excited into more vigorous movements than ordinary—the volume and force of its circulation are rendered more abundant, and visual perception becomes in the same ratio increased. In all this, however, there is no inflammation—there is augmented, but not *deranged* action—there is no *error loci*—the component parts of the blood preserve a proportionate distribution, and the ordinary standard of circulatory power may be restored without the intervention of organic derangement.

But, should the stimulus be applied with a certain measure of force, or under greater than usual irritability, the consequent impulse imparted to the circulating blood may be sufficient to destroy the balance of circulation; the tonic resistance of the capillaries may in some degree be overcome, distension, pain, redness produced, and, in the course of a very short time, but still only as a consequence, new fibres are formed, and new vessels made to germinate; and of the exceeding rapidity with which these new vessels are shot out from inflamed parts, the following very instructive case of Sir Everard Home affords an ample illustration.

This surgeon (Sir E. H.) performed the common operation for strangulated hernia at seven o'clock in the morning. The hernial sac was laid open, and the gut, which proved to be a portion of the ileum about six inches in length, was attentively examined previously to its being returned into the cavity of the belly. It had the natural polished surface peculiar to an intestine, and although its vessels were tinged wirh blood, it did not appear that they were uncommonly numerous. After the operation, the symptoms did not abate so much as might have been expected; and, during the afternoon, he complained of pain in the lower part of the belly. He had no passage by stool, and next morning, about seven o'clock, his pulse was scarcely perceptible to the touch, his skin cold and clammy, and, at about twelve o'clock at noon, he died, having lived twenty-nine hours after the operation.

The body was opened, and the portion of the gut which had been strangulated was found considerably inflamed, the external surface having lost it natural polish, and having several small portions of exudated coagulable lymph adhering to it. The vessels of the gut were minutely injected—the arteries with a red-coloured injection the veins with a yellow one. Upon examination afterwards, all these adhering portions of coagulating lymph were found to be injected, having a considerable artery going to each of them, and a returning vein which was larger than the artery. It was evident that the coagulating lymph was laid upon the external surface of the gut after the operation, and we cannot suppose that any such process as the forming new vessels could have been going on during the last five hours of his life, when the pulse at the wrist was scarcely to be felt and the powers of life were so muck weakened in every respect. We must therefore conclude that the whole operation of *throwing out lymph, and supplying it with blood vessels after it had become solid, was effected in less than twenty-four hours!*

Such, then, appear to be the necessary circumstances of inflammation—viz. capillary obstruction and distension, with consequent—immediately consequent—irritation which speedily, and indeed, simultaneously with the irritation set up, comes to be productive of new fibres and vessels, unless almost instantaneously reduced.

I now proceed to illustrate the manner in which inflammation is occasioned, and the various conditions, local as well as general, under which it is capable of existing.

From what has been advanced, it follows almost with the force of demonstration, that inflammation of a part (and there is no such thing as general inflammation) necessarily implies some deprivation of power in the vessels of the part; the tonicity, about which I have before spoken, is either lost or overcome—either direct or indirect debility has been induced.

I may further remark, that the febrile or irritative action, which occasionally (and sometimes consequently upon local inflammation) pervades the universal system, is a totally different condition of vessels from genuine inflammation; this last, I reiterate, must be an affection of a part.

Now, suppose two individuals, differently constituted as to general health, to be at the same moment affected with an inflammation in any particular organ—the liver for example: although the measure of mischief may be equal, and the inflammation may even have depended upon a similar cause in either, nevertheless, the actual character and mode of the topical disturbance, as well as the attendant symptom

generally, will be found materially to differ.

In the instance of liver inflammation occurring when the subject is in a state of high excitement and constitutional vigour, the morbid affection of the organ has resulted from the morbid force—the *vis-a-tergo* energy by which the blood has been propelled through its substance or investing membrane;—the tonicity or resisting faculty of the arteries has been vanquished by a superior power; the smaller or capillary branches of vessels are rendered pervious to a greater quantity of blood than may consist with health; pain is by consequence produced, which pain proves a new source of irritation; arterial pulsations become augmented—not in frequency only, but also in force;—a *hard*, vibratory, wiry pulse is occasioned; the sensitive, irritative fever of Darwin set up; in other words, sthenic disorder, with local inflammation, is established.

Our next supposition is to be the same grade and quantum of inflammation, with less of tonicity in the system; the induced irritation here partakes of the pervading feebleness, and the capillaries being weak, have given way before a less measure of impelling force; the resistance having been less, there is, by consequence, less of perturbed action; the pulse is not so hard and bounding, and this kind of action, from being less characterized by power, is, for the same reason, more likely to continue longer; atonic, asthenic, or chronic inflammation is established.

In both instances we have seen there is a relative debility of the capillaries; forcibly induced in the one instance, and, in its manifestation more spontaneous, or self-inductive in the other.

Let then this fact be kept in view, that some sort of weakness, or rather, some weakness in this or that way brought about, is necessarily present in inflammation.

Rationale of Symptoms. — An inflamed part is a part with increased *redness;* this, it is sufficiently obvious, is principally caused by distended and increased vascularity. *Pain*, more or less acute, according to the locality, is also present as a symptom of inflammation, which pain seems referrible to distension and pressure upon nervous fibrillæ—upon that increased sensibility which it is natural to suppose must accompany deranged action, and probably, upon the pullulation of new nervous substance, which is ever consentaneous with the formation of new vessels. The augmented *heat* of inflammation is partly produced by action, which almost always engenders heat, and probably, as Dr. Hastings suggests, by the new chemical affinities that are brought into play by the blood's decomposition more rapidly than would in the ordinary state of things be effected; and the new heat of new arterial blood may moreover assist in accounting for the increased heat which is so conspicuous a feature in inflammation. *Tumour and swelling* are caused, in part, by distension, but more especially, perhaps, by the effusion to which I have before alluded as a necessary concomitant of the inflamed state; the *sympathetic* or *systemic commotion* is referrible to a law of the animal economy, by which the distress of a part interferes with the totality of systematic harmony.

Kinds of Inflammation.—A general division has obtained among authors, of the disorder, into *phlegmonous* and *erythematic*. A phlegmon is described as an inflammation of a bright red colour, of a regularly circumscribed extent, and marked by a tendency to what is called the suppurative process. An erythema is characterized by a less deep colour, by its being superficial and spreading, rather than deep and circumscribed, and by evincing a disposition to gangrene or mortification, rather than to suppuration. On the surface also of parts affected by erythema, a watery fluid either oozes out from the pores of the skin, or is connected beneath the cuticle, and is productive of vesicular swelling.

Boils are phlegmons, as are the pustules in distinct small-pox. Scarlet fever and measles—more especially the former—is rather more erythematic or spreading. But the most marked illustration we meet with of erythematic inflammation, is in the disorder named erysipelas, which will afterwards come under more especial notice.

Phlegmons are not seated upon, or are not confined to superficial or rather continuous membranes; erythema is a disorder of these membranes.

But the exciting cause, as well as the texture implicated, modifies the nature of the disorder. Rheumatic and ordinary inflammation, even when the habit of the individual is the same, and the texture involved the same also, will prove positively different in their characteristics. Thus the erythema of scarlet fever implicating the dermoid surface; that from hooping cough involving the bronchial membrane; that from syphilis, sometimes attacking one part and sometimes another; that from scrofula, attacking, as well as syphilis, the lymphatic organization, have a difference beyond that which can be inferred from their mere locality; and although they may each and every one be at times erythematic, and at times phlegmonous, their varieties are not to be taken from these their external characters, but are to be sought for elsewhere.

The exciting causes of inflammation are almost as numerous as the causes of disease generally; for although, as will soon be seen, I am anything but an advocate for that pathology which resolves almost all disease into inflammation, I will admit that either originally, or in the course of morbid action,

inflammation in one part or other is liable to occur as a feature of deranged being. The most simple and most general of the causes which give rise to inflammation, especially in this country, are alternations in temperature; in other words, changes from heat to cold, and from cold to heat. I may just here remark that these changes principally engender local disorder, as they operate partially. It is extraordinary what a high measure of heat an individual may leave, and go suddenly into a low temperature without any bad consequences; but if the heat or cold be applied to, or abstracted from the body partially, then the inflammation of a part will soon be occasioned. "Frigus," says Dr. Brown, "nunquam nocet, nisi calor excipit"—cold never injures unless followed by heat; but, as in the case of the other transition, a man heated by exercise under the grade of perspiration, may plunge into a cold bath fearlessly, while the same individual would have local inflammation established by standing in a current of less cold air, so as to permit the cold thus to impinge on a part of the body. But on these topics I shall afterwards have to advert when considering the question of disease-creating powers, and when treating on pulmonary disorder, more particularly. The mode of acting in another very common source of inflammation, viz. spirit-drinking, will find also a place of more appropriate investigation when I shall be considering the laws and circumstances generally of medicinal agency—the *modus agendi*, as it is termed, of remedial agents.

Authors, especially surgical writers, following John Hunter, speak of adhesive, suppurative, and ulcerative inflammation; by the first, they mean those inflammatory conditions which are especially consequent upon accidents, and which give rise to a solution of continuity, as it is technically expressed; that is, when parts are divided, an inflammation is set up in these parts, coagulable lymph is thrown out, new vessels shoot into it, and thus a reunion is effected by the communication of these new vessels with the old ones; in this case, very little being demanded from the practitioner, beyond watching and keeping these new shoots from transgressing due limits. It is in this, the adhesive inflammation, we find the theory of inflammatory condition I have pourtrayed beautifully illustrated; and the regeneration and formation of new channels of circulation, on which I enlarged when treating of the circulation, so manifestly exemplified. Then the suppurative rather denotes that inflammation which, if not speedily resolved, pours out pus, which pus is often bounded by an adventitious membrane, whose nature and mode of formation I will shortly point out; and thus spreading or ulceration is guarded against: while the ulcerative inflammation is a term given to the disorder, when its locality is membranous, and its nature specific; and which, if not resolved, becomes an actual ulcer; such are the ulcerative conditions of the extremities of the stomach, following a species of inflammatory action, which is named scirrhus; or, when it is in a state of ulcer, cancer.

But I am in the present lecture to confine myself to the mention of the three commonly described *terminations* of inflammation, viz. into resolution, suppuration, and gangrene or mortification, or sloughing.

The term resolution is meant to designate that recovery from the disorder which shall be effected without the intervention of any disorganizing process; that is, the exciting cause of the disorder being withdrawn, and repellents, perhaps, applied, the vessels will return to the condition in which they had been prior to the deranged state; if, however, those positions be correct which make inflammation to differ from mere irritation or excitement, by virtue of a new action being set up, we shall perceive that to resolve or cure the malady in this most direct and simple manner, is not quite so simple or uncomplicated a process as the term would seem to imply. There must be a dispersion of newly-formed parts, there must be *absorption;* that is, the results of the inflammation must be obviated as well as the perturbed action subdued. How this principle applies to curative indications and processes, we shall immediately see.

If we cannot resolve inflammation, it must go on to suppuration, or gangrene. On the *quo modo* of the suppurative process, opinion was exceedingly vague down to the time of the late John Hunter. The celebrated Pott talks, in his inestimable works, of the solid parts being *melted down*, and forming pus; Cullen, in his First Lines, expresses himself nearly to the same effect; and even now there is some obscurity connected with the rationale of purulent production. It is at length pretty uniformly understood that pus is a secreted matter from the vessels pouring it out, and that this secretory power is imparted to these vessels by the changes which inflammation has given rise to.

On the termination by gangrene, pathologists have also, until very recently, had their notions coloured by an obscure kind of chemical doctrine. Thus, Dr. Cullen says, "Gangrene originates from the matter that has been effused into the cellular texture during inflammation being tainted with a putrid ferment." It is, however, more correct to say, that gangrene is a kind of local death from exhausted powers; and, that the parts concerned in its production, no longer obeying the stimulus of life, become disorganized; and, by consequence, the subjects of chemical change.

Symptoms denoting the termination of Inflammation.—In resolution it is scarcely necessary to say, that both topical and systematic disturbance abate, pain is diminished, the pulse is reduced in frequency and becomes soft, the redness and tumour (should the disorder be on the outer parts of the body) decline, and every progressive change is, in a word, for the better.

But the tendency to suppuration is marked by the pain rather changing its character than abating, from being of a straightened stretching kind, or, as if produced by a distending power, it becomes full and throbbing, while the pulse also becomes more full without being less frequent. And now mark, gentlemen, this symptom is almost a constant accompaniment of the change under notice; rigors are felt by the patient, which are more or less observable, according to the extent of the inflammation, the texture it involves, and the nature of the invalid's constitution.

Gangrene, or mortification (gangrene being its extreme point), is denoted by the features of weakness and exhaustion becoming more and more fixed and conspicuous; but there is one most important particular necessary to bear in recollection, viz. that the cessation of pain, which often happens in internal parts, and which, without much discernment and attention, will sometimes put on the seeming of all things going on well, will, when it is a token that gangrene is about setting in, be accompanied by a hurried rapid pulsation, the numbers far exceeding those which marked the first stage of the inflammatory process. Let, then, the young practitioner be always fearful of pronouncing his patient better merely because the pain has subsided; let him attentively watch the pulsations, and, if they be found running on with a celerity beyond the grade of health, let him be cautious in his prognosis; should this quickness increase and be followed by hiccough, the fatal termination of the disorder may be predicted with some degree of certainty.

I insist the more on this particular, because I have had occasion to observe many mistaken anticipations, both by patient and practitioner; and many happy feelings on the part of either, which alas! too soon were to be exchanged for the death of the one, and the total discomfiture of the other. Never, then, I would reiterate, never be satisfied that resolution has taken place, and that things are proceeding kindly, while the pulse of your patient, instead of being restored to its healthy standard, is running on with celerity. Suspect suppuration when rigors or shivers occur; fear mortification when the pulse is exceedingly quick, and the pain has given way.

With these rules and cautions, which I dwell on because I feel their paramount importance, I will terminate my present address. At our next meeting I will resume the subject of inflammation and its treatment, and then pass on to the consideration of hæmorrhages, or sanguineous discharges.

CLINICAL LECTURE
ON
DIABETES AND ERYSIPELAS,

Delivered at the North London Hospital.

By DR. ELLIOTSON,

SESSION 1836.

GENTLEMEN—I have to speak to-day, first, of a case of diabetes, which has been a long time in the hospital, and illustrates the disease as well as it can possibly be illustrated. It occurred in a man, J. E., aged twenty-three, who was admitted on the 21st of April, 1835, labouring under diabetes. You will observe this patient was a male; now, this disease more frequently occurs in males than females; you will notice also that he was at the adult period of life: this is the most general time of its occurrence, though I have seen it at all ages; the adult, however, is the most common period at which it occurs. This disease is more frequent too among the labouring classes, though not confined to them. This man was a baker; and I think, as far as my experience goes in the matter, that bakers are more subject than other tradesmen to this affection. This man was admitted on the 21st of April of the last year; he is of a fair complexion, pale, with light hair, and of generally delicate appearance. It appears that he had felt unwell for five or six weeks previous to his admission. The first symptom of illness from which he suffered was a pain running along the inner surface of the left thigh; this pain was of a shooting character, tender on pressure, but without any numbness; it did not extend to the leg, but extended from the thigh along the left inferior part of the abdomen, along the course of the ureter, being deep-seated. There was much pain in pressure on this part, but none on the corresponding portion of the opposite side of the abdomen. The tongue was smooth and red, which seems peculiar to this affection; in some cases it remains so through the entire period of the disease. He had great thirst; this is also a common symptom: there was a tenacious clammy secretion about the throat; there is nothing which excites thirst so much as this kind of secretion; his appetite was good, as it generally is in diabetes; nothing remarkable in his bowels. The skin was dry and harsh, as is usually the case, covered, it says in the report, with numbers of hard papulæ. His hair had grown thin by falling off; he was not bald, but there was a scantiness of hair,

arising from the want of nutrition, the skin being so dry and harsh. He had no perspiration; sometimes these patients, however, perspire very freely. If I remember rightly, this patient perspired a good deal at periods, after he had been here some time; I do not know whether it is so stated in the report. He says he never had connection with a woman: now, many persons say this affection depends on excess in venery. I remember a man at St. Thomas's who had diabetes, coming on shortly after marriage; he had indulged too much. Our patient said he had desire, but it was controllable; I should think it was not very urgent. It is not probable that the desire goes all at once, but gradually, as the strength of the patient decreases. I never remember a case of this disease in which this desire did not eventually fail, though it is not often mentioned; it is not pleasant to mention. Our patient had a slight cough, but no expectoration. He had observed, that for five or six weeks previous to his admission, that he made more water than he had been in the habit of doing, and that he had frequently to get out of bed in the night for the purpose of relieving the bladder. On his admission, we found that he made thirteen pints and a half of water in the twelve hours; it was of a light straw colour, as is usual in diabetes, and its specific gravity was 1,030; on evaporating it, a substance of a dark colour, like impure brown sugar, remained; it had a slightly sweet taste. He could not attribute his disease to any cause, but of course he has been exposed to the heats of a bake-house and to sudden changes of atmosphere. Of the extract that was produced, it was found that thirteen pints and a half of urine yielded fifteen and a half ounces of it. On his admission we could not discover any disease of the chest; he had not, however, been long here before we detected cavernous respiration and pectoriloquy under the left clavicle. After a short time, this cavity ceased to increase, and remained in one state for some months. In addition to these symptoms, he had red and ulcerated gums; and there was a dirty secretion from the roots of the teeth, which were black, and almost all of which dropped out before he died. We began, on his admission, to give him creosote, because a report had been published in the foreign journals, in which it was stated the use of

Cresote in Cases of Diabetes

had been found successful, and I thought our patient, at all events, ought to have the benefit of its trial; we therefore gave him one minim of creosote three times a-day, and we increased the dose gradually to thirty minims; so that he took the largest possible quantity: the urine, under this treatment, diminished considerably in quantity. We began in April, and on the 10th of September I find he made only six pints of water; he was then taking twenty-three minims of the creosote three times a-day; the specific gravity of the urine was now 1,030. The quantity was considerably diminished. You will remember he made thirteen and a half pints on his admission. On the 15th of September he left the hospital, as he thought himself better, and was anxious to endeavour, if possible, to earn his livelihood; his friends had done all they could for him, and he could not procure tea and the other little necessaries patients require. Though he thought himself better, I felt convinced he would soon be worse, and tried to prevail on him to stay; this, however, he would not do, and he therefore left. He was then making six pints of water, of the specific gravity of 1,035, and was drinking seventeen pints in the twenty-four hours; he had a great appetite, his gums were much decayed, and pieces of his teeth broke off whilst he was eating; his tongue was red, moist, and shining; he perspired rather more at night; his pulse was 100, and soft; there was pectoriloquy under the left clavicle; he had a cough unattended with expectoration, but is disturbed by it in the night. This was his state when he left the hospital. As we expected, he soon returned; he had not been able to do any work; he returned on the 15th of October; his cough still continued and was attended with some pain in the chest; the urine was increased in quantity; he slept well, and had a good appetite. We again gave him creosote, which we were enabled to increase to thirty minim doses three times daily. Its specific gravity increased to 1,041 which is pretty high; on some occasions, though, it rose to more than 1,050. The quantity of urine voided was not so great, not amounting to more than five or six pints in the twenty-four hours. Now, I never yet saw creosote of any permanent benefit in these cases. I am inclined to believe that hasty conclusions have been arrived at in those cases said to be cured by its agency. I have myself seen it do good in some cases, but never saw it cure the disease. I have now given it in five cases; one of them proved fatal, the others did not much improve, its effect seeming to cease after a certain time. Finding things at a stand-still with our patient I determined on giving him opium, which has a great effect in this disease. We began by giving him half a grain of it three times a-day, and got up to four-grain doses. Notwithstanding these large doses, diarrhœa came on, and we had to administer the compound powder of kino, a scruple of which contains, as you know, one grain of opium; we increased the kino to half-drachm doses three times a-day; so that at one time he was taking about seventeen grains of opium daily. This had the effect of restoring the action of the bowels. There was rather a curious circumstance occurred at his first

coming in; the pain in the neighbourhood of his left kidney was so severe that we thought almost at one time that the kidney was enlarging and suppurating. The abscess was opened, and there was a considerable discharge from it. The abscess was only in the neighbourhood of the kidney; another swelling, very much like the one containing matter, subsequently appeared close to the tuberosity of the ischium, and there was every appearance that it would suppurate. Mr. Liston told me, he thought that matter had formed there; probably some small quantity had done so; but, however it was, it was all absorbed, for the swelling went entirely away. The other day inflammation began in the top of the thigh, near the trochanter major, and a large quantity of matter formed there; this was let out, and a sinus remained there until he died. He could hardly be said to die of the diabetes, though he was labouring under it, but in a complete state of phthisis. On examining the chest after death, we found a cavity in the place where we originally detected it, under the left clavicle, and several ulcerations in various parts of the left lung. It is a common thing in diabetes for patients to die of consumption, particularly if they are young; I have opened many where I have found advanced phthisis, or the formation of tuberculous matter. It is remarkable, that in this affection we so generally detect the presence of sugar in the urine, that impotence comes on, and that the patient dies of consumption. Phthisis in this case came on quite early; probably he had tubercles in his lungs when he was first admitted, but these we cannot detect with the stethoscope. There was no structural disease of the kidneys, as you will observe; they are much increased in size, and there is some heightening of the colour, but nothing more than you would observe in an over-worked organ. There appears nothing to warrant an opinion of diabetes being anything but a functional disease. The heart was very small; the liver large and granulated; the lungs one mass of disease.

Of all the drugs we employ,

Opium, in Diabetes,

has the greatest power over the quantity and quality of the urine. This is one of the most perfect cases you will see. It is not always that the gums are affected as they were in this case.

The next case I have to speak of is one which was originally erysipelas, which, however, was one of those cases of the disease, in which there is no necessity for the employment of active measures. This man was subject to attacks of erysipelas; in such cases you will generally find they will terminate well under the mildest treatment. This man was aged 42, and was admitted on January the 14th, of the present year. He is a gentleman's servant, and was much addicted to drinking at one period of his life; he has generally enjoyed good health, until about five years since, when he was attacked with an eruption on the left side of the face; his mistress had just died of erysipelas. He then went into St. George's Hospital, where he stayed for two months. The disease at that time commenced on the left side of the face, about the nose and eyes, and extended afterwards to the other side of the face, and the whole of the scalp; the left side of the throat became also affected, as did the right leg. Since then he has been subjected to various kinds of complaints; he has had varicose veins, an affection of the chest, and other complaints. On his admission here, there was redness and swelling of the nose and right side of the face: the redness was circumscribed. His skin was cool and dry, his tongue slightly furred; he had great thirst; his bowels were confined; his urine scanty and high-coloured; his pulse full and strong. He was bled to twelve ounces, and six grains of calomel given him; the calomel was repeated the next day, followed by a purgative draught, and the erysipelas was put an end to. I saw a relation of one of us the other day labouring under a slight attack of erysipelas, in which, as in the above case, there was no occasion to apply the nitrate of silver; I felt certain it would do well without any other treatment than a cold application to the parts, when they became warm, and low diet. I saw another case of this disease the other day, in which there was no excitement of pulse, and which yielded quickly to purging and low diet. When trifling remedies are used in such affections, they occasionally get credit to which they are not all entitled. When the erysipelas was cured in our case, the patient had ecthyma on the legs, for which we gave him purgatives of calomel and jalap. We applied to the varicose veins the tincture of iodine, which has the effect of lessening this affection; whether it acts permanently on the vessels, I cannot say, but it certainly lessens them for the time. In spite of our remedies, however, the man did not get better, and I began to suspect a trick; and I was told he had been seen to pick off the eruptions, no doubt for the purpose of keeping up the redness and irritation of the legs. I gave him a fair chance, however; he stopped in the hospital from the end of January to the 6th of March, about six weeks, and I then discharged him.

Professorship of Clinical Surgery, Paris.

M. SANSON has been elected to the professorship of surgery, vacant by the death of the great DUPUYTREN. He was elected by a majority of eight votes: he is certainly as worthy a successor as could be found to the late illustrious surgeon.

CLINICAL LECTURE
ON
IRRITABLE STUMP,
Illustrated by Cases in the North London Hospital.
By MR. LISTON,
SESSION 1836.

I WISH to call your attention to-day to a case of irritable stump; such cases, I fear, will be numerous, so long as the present practice of amputation is continued. The patient, whose case I shall first mention, was admitted a few days since; she is thirty-five years of age; she complains of great pain in her stump, which was made several years since. There is great debility in it; and there seems a great degree of torpor about the nervous centres. There is partial paralysis of the sound leg, of which the foot appears to be merely hung to it by ligaments, and is almost useless. She is also labouring under amaurosis. Before proceeding further with a detail of the case, I will mention to you the changes which take place after the removal of a limb. Patients can scarcely be said to be benefited by an operation, who suffer so much after it as some unfortunately do. I need scarcely say how desirable it is to find some means of relieving the tortures to which these sort of patients are exposed.

After the removal of a limb by amputation a remarkable change takes place in the stump. There is at first a considerable effusion of lymph and swelling around the parts. If union takes place quickly, a great portion of it is absorbed and the cellular tissue becomes soft and pliable around the bone. The vessels of the part become obliterated, so that an injection passes with considerable difficulty even in the larger vessels, and does not reach in them within two or three inches of the end of the stump. The muscles shrink and are absorbed; so that even in the best formed stumps you will find that the roundness is generally lost; hence the great necessity of leaving abundance of soft parts. The bone also undergoes great changes; sometimes, indeed, if active inflammation comes on, it becomes considerably enlarged. It is more usual, however, for it to become rounded off and diminished in bulk, as you will observe in this specimen of a stump of a leg. You will very generally find too, that where there are two bones divided, as in the leg, they become united. When pressure is applied, or when the stump is too long, a synovial pouch is often formed for the purpose of doing away with the effects of the pressure. The most remarkable change, however, takes place in the nerves, which, instead of following the example of the other parts, invariably increase in size, and when the extremities of them become pressed against the end of the bone, this enlargement becomes still greater. I believe a nerve when divided always becomes larger, owing apparently to a deposit of lymph in the cellular tissue, connecting the nervous fibrillæ at the extremities of the divided portions. These enlargements, you will observe, have taken place in all the preparations on the table. Here is a little tumour of a nerve which followed after the removal of a finger; the pain in this case extended up the arm. Here is another specimen which was obtained from an amputation of a stump performed for the fourth time on the same individual. He applied to me, I believe after the third operation had been performed; the stump was in a most irritable state; the operation had not been particularly well done; the stump was far from being a good one. I had the honour of operating on him, and took care to shorten the nerve considerably; this was attended with complete success. In these cases, however, the nervous system is almost sure to suffer more or less; and in some patients, as the one now in the hospital, there is partial paralysis. Now, our object is to find a remedy for these affections, and to prevent them as much as possible. I would recommend you on no account to perform the circular operation; it is exceedingly difficult and painful to do so where there are two bones on the limb; I would rather recommend you to operate as you have seen me lately in many cases, by the double flap operation, an account of which you will find in the "Elements of Surgery;" and which account Mr. Cooper has done me the honour to copy. In cases of single bones you will do well to cut from within (outwards), and form your flaps in that way. In some cases I should prefer to make an incision from the integuments to the bone, thus forming the first flap, and then carry it from within outwards, to complete the second; this you will find is attended with less pain to the patient. The parts cut too are smoother and more favourably disposed for healing. When we meet with these stumps it is sometimes advisable to attempt to palliate the symptoms; attention to the digestive functions; the application of opiate plaisters, or ointment of veratria, are sometimes attended with beneficial results. But so long as the extremities are exposed, and the soft parts kept in a state of tension over the bones, none of these applications will be effectual. It is recommended in some instances to cut out the extremities of the nerves: that is, by cutting down upon and dissecting them out. In some cases this proceeding is exceedingly difficult, attended with much suffering, and is not always successful, particularly in such a case as is illustrated in this specimen, where there is enlargement of so many branches; for it is

not always that taking out the extremities of the principal nerves is attended with a good result. The least painful and most effectual operation in these cases is the shortening of the stump at once, by removal of the excess of bone, and the nervous extremities. Here are specimens of two stumps: in this the circular operation was performed, in the other the double flap was practised; in the first the patient suffered afterwards the greatest torments; in the other he suffered nothing. You saw lately on operation performed in a case similar to the first of these, in which the patient was completely relieved.

Other circumstances may require a second amputation; such for instance as the inordinate length of the stump, which renders it exceedingly inconvenient to the patient, by getting entangled in his clothes, &c. Here you see a case which was turned out of an hospital at the east end of this town; it is rather a horrid looking stump; at all events I took the liberty of cutting it off and making a better; for, as you will see, the bones, which were cut of unequal length, were both affected with necrosis, and surrounded by a large bone ulcer. In the case in the hospital, the woman's whole nervous system is so much affected it is difficult to know how to act for the best. The stump is so near the knee, it would be difficult to perform another operation below that point. It is a pity these bad stumps are not left a little longer. There is fear of removal of the limb above the knee; it is probable she would not stand the operation.

I shall now speak to you of a case of

Hydrocele

—a disease which is constantly occurring in private practice, and which the patient is exceedingly anxious to get rid of; and it is fortunate you can generally very easily relieve these cases. As to the causes and symptoms of this affection, it is not worth taking up your time in a description of them, as I have spoken so frequently to you before on the subject, and also of the means by which you would distinguish this from other diseases. You will generally find the history of the case, should the other symptoms be obscure, assist you in arriving at a correct opinion; I mention this case from its presenting some peculiarities; these diagrams shew hydrocele well, and exhibit the difference between it and hernia. The man whose case we shall speak of, was admitted some time back with hydrocele, which previous to his admission had been treated for some time with palliatives; he was, however, anxious to have the radical cure performed, and therefore came into the hospital. I injected pure port wine; you will generally find the inflammation excited by this is not too great; sometimes, indeed, as in this case, it is not sufficiently active; some surgeons fancy sulphate of zinc, some diluted wine; others resort to other remedies; one of the surgeons of St. Thomas's Hospital recommends the insertion of a seton; this is by no means a new plan, though he thought he made an improvement on the one mentioned by Mr. Pott. The result, however, of his seven cases detailed to us in this book (the St. Thomas's Hospital Reports) does not say much in favour of the plan. Pott, I have said, spoke of the plan. Monro *primus* of Edinburgh, too, an excellent surgeon, suggested the propriety of keeping in the canula of the trochar to excite inflammation in the tunica vaginalis. Pott quotes this passage from Monro, and recommends the introduction of a seton to effect the same purpose. Mr. Green says, "the plan of the seton, as used by Mr. Pott, who carried a seton through the tunic, and then allowing it to come away by ulceration, thus laid open the tunic."

Pott does not say so, but the following passage occurs in his works:—"In the cure by seton no slough is produced (at least I have never seen one), nor is the vaginal coat destroyed in any part of it; a firm cohesion is made between the two membranes, occasioned by the inflammation; and the cure is effected solely thereby." How Mr. Green reconciles these I do not know; I should consider Mr. Pott fully as competent a judge as Mr. Green, at all events. I certainly should not recommend the adoption of this plan—the patient is laid up a much longer period than he is when the common operation is performed; when the injection of port wine is used, the patient is quite well in two or three weeks, and during that period can enjoy himself. Out of Mr. Green's list of seven, it does not appear one of them was in the hospital less than two months, and some of them considerably longer. You will also see that very few of the cases could be said to be successful. "In one, suppuration took place, and in another a second operation was required" —"another was not perfectly successful," and so on. You will seldom be disappointed in the operation by injection—you keep the port wine in for a few minutes, until the patient begins to feel pain; there are some cases in which this operation is not successful, and a stronger injection is required. I have had occasion to employ spirits in three or four cases only, and they were all successful. In one case, that of a young man, I injected the port wine twice without effect; the third time I used spirit, and he was cured. The patient lately in the hospital had the operation first performed on the 3rd of February; another injection was afterwards used—one of spirit—and yet he was enabled to leave the hospital, well, on the 17th of March.

After injection for hydrocele, swelling takes place, which arises from effusion into

the tunica vaginalis; the fluid is reabsorbed, and the exhalents and absorbents keep pace with one another afterwards. There is no gluing together of the membranes, as some have asserted. Of all operations for the removal of hydrocele, I prefer that of injection. I wished to have called your attention to fractures, as well as to some of the tumours of the jaw and mouth; these subjects, however, I must postpone until next Friday, and the following weeks.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XII.

Of the Sexual Organs.

The organs of reproduction in the human species are partly contained in the pelvis, and partly external to it. They are divided into *external* and *internal*.

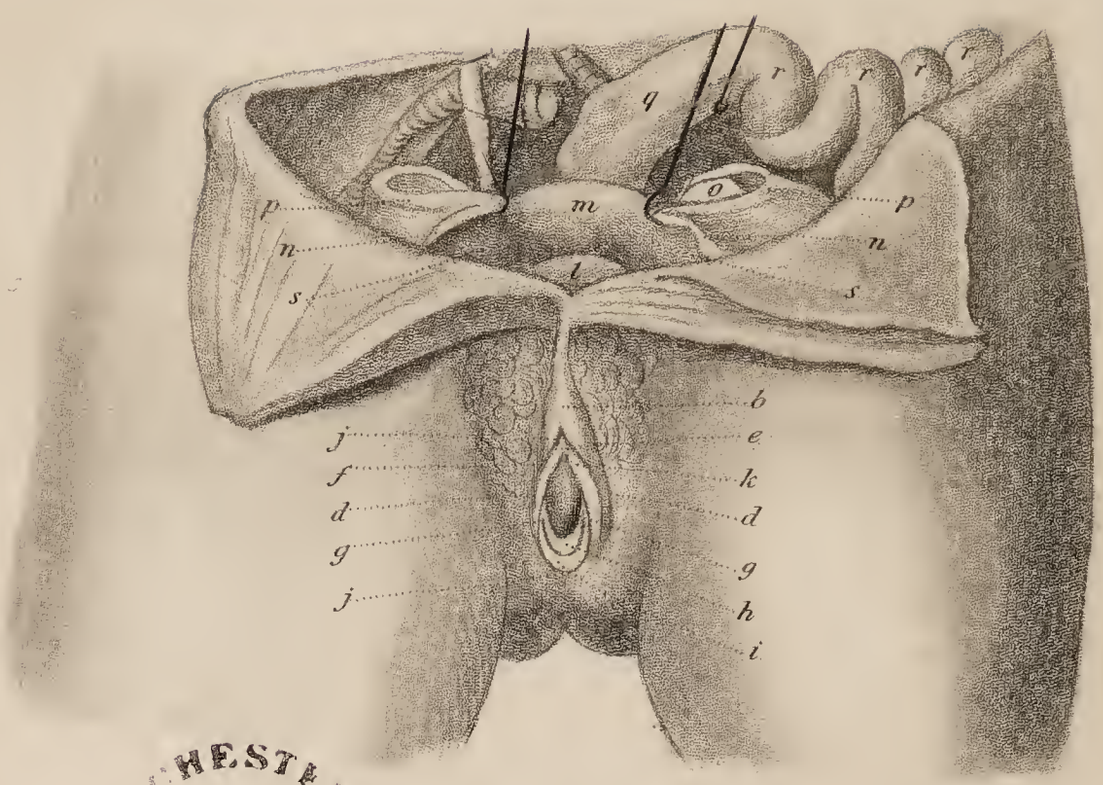
Of the External Organs of Generation.

The *external organs of generation* in the human female are the *mons veneris*, the *vulva*, and *perineum* (*plate* 3, *fig.* 2). Though these parts are secondary in the act of parturition, they may be exposed to much injury, which renders an exact account of them indispensable to the obstetrician.

The *mons veneris* is a fatty eminence, covered with hairs after puberty, situated on the symphysis pubis, arising on each side from the groin, composed of common integuments, fibrous and cellular tissue, and a great number of sebaceous follicles. It is from an inch to two in breadth, and bifurcates inferiorly to form the labia externa. It is more or less prominent, and in fat women is separated from the abdomen by a furrow, and forms a cushion of fat and cellular substance (*plate* 3, *fig.* 2, *l*). It is sometimes the seat of phlegmonous inflammation, which is accompanied with acute pain, and is speedily followed by suppuration. We are seldom consulted when this part is inflamed, and usually find an abscess formed, which requires to be opened as promptly as possible. Sonnini describes Egyptian women in whom a fleshy growth extended from the mons veneris over the genital fissure; and a similar excrescence is also mentioned by Thevenot, and is common in the Hottentot women of the Cape of Good Hope. This deformity is very rare in Europeans; but an example was observed on a young girl at Arras in 1745, which was four inches in length, and covered with skin.

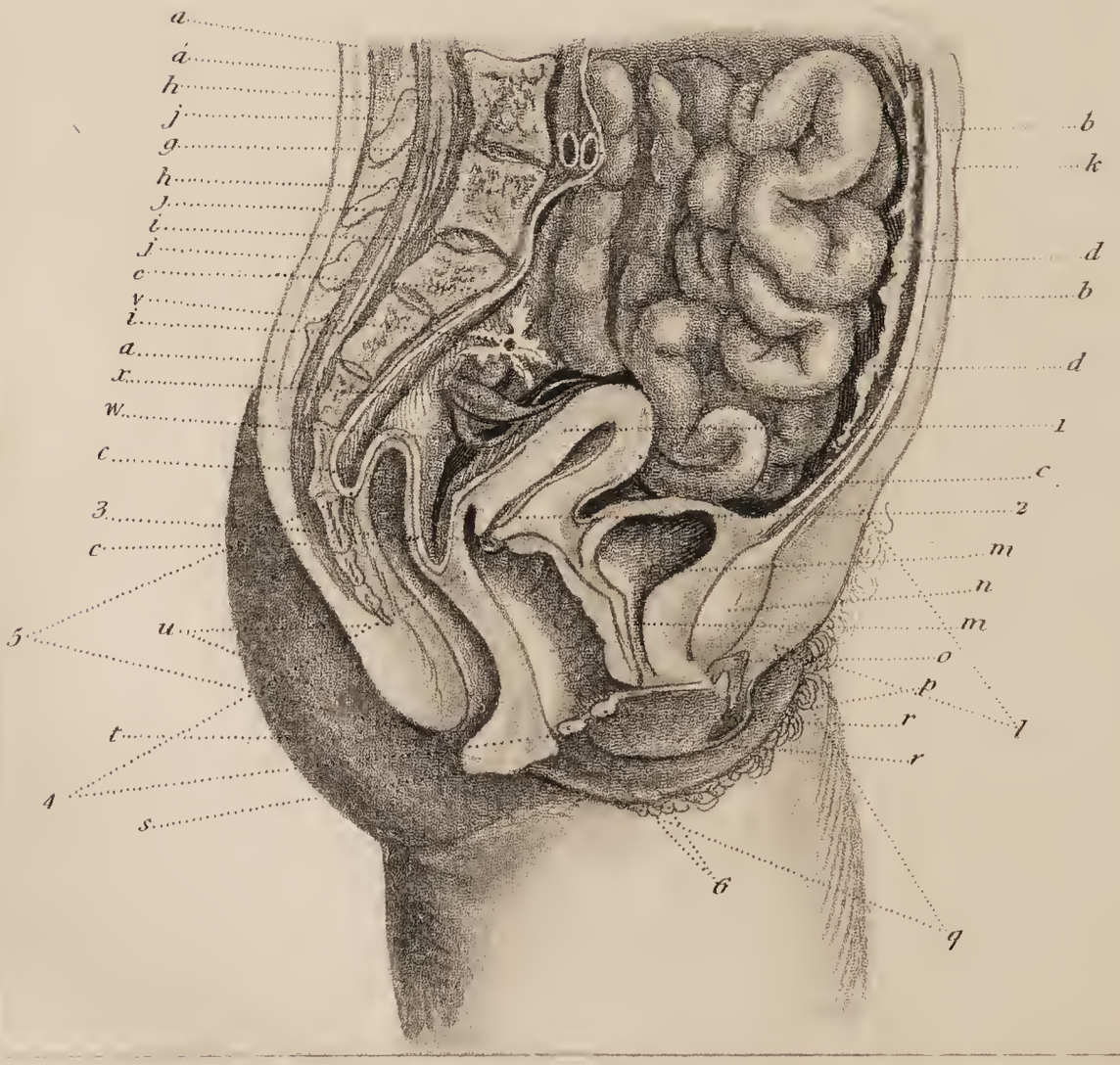
Labia externa Majora Pudendi.—The labia arise at the termination of the mons veneris, and descend to the perineum anterius, and within an inch of the anus, where they are united. They consist of common integuments, cellular substance, and fat, and are covered with capillary growth after puberty. Their internal surface is smooth, and of a rosaceous colour, covered with mucous membrane, with numerous mucous and sebaceous follicles, which sometimes give rise to an acrid irritating discharge, often mistaken for gonorrhœa (*plate* 3, *fig.* 2, *g*). The points at which the greater labia are united, above and below, are called the *superior* and *inferior commissures*

Fig. 1.



CHESTER
ROYAL

Fig. 2.



London: G. Henderson, 2. Old Bailey.

(*plate* 3, *fig.* 1, *i*). Before puberty the labia are dense, and in apposition, and about three inches in length; after marriage they become elongated, separated, flaccid, and bluish, and lose their regularity. They sometimes grow together in delicate children who, from want of proper ablution, become ulcerated. There may be complete union, which will close the genital fissure except at the upper part, which is kept open by the frequent passage of the urine. I have repeatedly operated on girls before the age of puberty, for this defect, and also on several children. The disease would impede menstruation and the consummation of marriage in the former. Similar cases are recorded by many obstetric writers, as Mauriceau, Deventer, La Motte, Roonhuysen, Morgagni, and many others. When inflamed, the pain is excessive; but suppuration takes place very rapidly, and matter is discharged in twenty-four or thirty-six hours, by poultices. According to Dr. Burns, the abscess ought not to be opened, as hæmorrhage takes place; while M. Velpeau recommends a deep incision in proper time, to prevent the formation of fistulous openings. My own experience accords with that of Dr. Burns. The labia may be congested, anasarcous, greatly swollen, and the seat of hernia or other tumours, which will be described hereafter.

The fissure formed by the labia is called the *vulva*, *pudendum*, or *genital fissure*, or *sinus pudoris* (*plate* 3, *fig.* 1). It contains other parts: the *labia minora*, the *clitoris*, the *vestibulum*, the *meatus urinarius*, the *vaginal orifice*, the *hymen*, the *fossa navicularis*, and the *frœnum* or *fourchette*. On separating the labia externa at the superior commissure, we see the *clitoris*.

The *clitoris* is an erectile, elongated organ, compared by some to the palate, composed of two cavernous, spongy, vascular bodies, about an inch in length, with erector muscles, and is inserted into the ischio-pubic branches. It resembles the penis, has a round free extremity, called its *glans*, which is enveloped by skin or *prepuce*, and terminates in the labia minora. A suspensory ligament attaches the clitoris to the pubis (*plate* 3, *fig.* 1, *b*). In the first months of intra-uterine life, the clitoris is as voluminous as the penis, and is often mistaken for it; but at birth it is greatly diminished in size, and at puberty it is a tubercle of about four lines in length. It sometimes increases to four or five inches in length in the adult, and then constitutes a form of hermaphroditism. It becomes erect during coition, and is the principal seat of voluptuousness. It is not very liable to disease, though sometimes the seat of cancer and cauliflower excrescence. If elongated or diseased, it may be removed by excision. There are many cases recorded, in which emaciation, hysteria, leucorrhœa, and nymphomania were induced by excessive irritation of this organ, and for the removal of which, its excision was the only remedy. Saviard, Petit de Namur, Zacchias, Duval, Gaspar, Bauhin, Fodéré, Beck, and many other writers on medical jurisprudence, have given ample details of such cases, as also have the various medical periodicals. Such elongations are, however, rarely observed in temperate climates. The clitoris has weighed nine pounds, and was successfully excised (Mollineti, cited by Bonet, Macfarlane, Med. Chir. Rev. 1833, Trans. of Provincial Medical Association, 1836). The relative position of the urethra ought to be known, to enable the surgeon to perform catheterism (*plate* 3, *fig.* 1, *n*).

Introduction of the Catheter.—The orifice of the urethra is placed about an inch below the clitoris, and under the arch of the pubis. The position of the woman may be upon her left side or back; but sometimes in the sitting posture, the operator kneeling in front of the patient. I have known the operation performed in the erect position. The labia are to be separated with the fore and middle fingers of the left hand, and the former is then passed along the pubis, and a little below it, when a small depression or tubercle

will be felt, which is the orifice of the urethra. The catheter, dipped in oil, is now introduced with the right hand. It is to be recollected that the urethra runs along the symphysis pubis. If the finger be introduced into the vagina, and drawn along the pubic joint, the urethra is readily distinguished by its size, and its orifice easily detected. There is scarcely ever a necessity of exposing the patient in performing catheterism. The operation may be required for several days after delivery. The urethra is sometimes discovered with difficulty when inflamed and enlarged, and in such cases only is exposure indispensable.

Behind the glans of the clitoris and between the nymphæ is a triangular space, about an inch in extent, called the *vestibulum*, which does not fulfil any function relative to generation (*plate* 3, *fig.* 1, *k.*) Celsus and Lisfranc have proposed to perform the operation of lithotomy on women through this space.

Posteriorly, and about half an inch from the symphysis pubis, is the *meatus urinarius*, or orifice of the urethra, a small round tubercle, surrounded by slight depressions, called *lacunæ* (*plate* 3, *fig.* 1, *f*). The female urethra is about an inch or an inch and a half in length, is capable of great dilatation, and subject to much injury during parturition. It is connected to the pubis by the ligamentum inferius vesicæ. It may be contused, lacerated, and often sloughs, forming an aperture into the vagina, or vesico-vaginal fistula.

The *labia minora*, or *nymphæ* are two continuations from the prepuce of the clitoris and labia externa, and have been compared to the comb of a young cock. They descend and diverge on the internal surface of the labia majora, and terminate insensibly about the middle of these last. Their consistence is firm, their colour reddish; they are formed by the fine, thin, vascular, and erectile tissue of the clitoris, and consist internally of adipose and cellular tissue (*plate* 3, *fig*, 1, *d. d*). At birth they pass the level of the external labia; in virgins they are hidden by the latter; and in women who have had children, they again project, but lose their density and rosaceous colour. They are sometimes elongated, naturally or accidentally, and in some countries, as Hindostan, Turkey, and Persia, they produce so much inconvenience as to require excision—an operation occasionally required in European nations. Strabon states, that such operations were extremely common among the women of ancient Egypt; and that excision was required by almost all, on account of the inconvenience experienced in walking, riding, and sexual intercourse. Belon and other recent travellers also attest this fact. The disease is common in the torrid countries of Africa; and Leon, the African traveller, informs us that there are certain men and women who have no other occupation than practising excision or circumcision of the elongated nymphæ. He also states that these persons cry loudly through the streets, at the same time looking at every woman, "Who wishes to be cut?" (See also the works of Eusebius, Herodotus, Avicenna, Zimmerman, Buffon, &c. &c). The nymphæ are said to direct the stream of urine, and to increase venereal enjoyment.

The *hymen*, or *circulus membranosus*, is a thin, extensile membrane or muscle (Velpeau), formed by a doubling of the inner surface of the vestibulum, of a semi-lunar form, its extremities or cornua ascending upwards to the sides of the urethra, where they unite. This membrane nearly closes the vulvo-vaginal orifice, leaving a small crescentic aperture superiorily for the escape of the menses. This opening is absent occasionally, and in other cases the hymen is cribriform or imperforate (*plate* 3, *fig.* 1, *g g*). It was long considered a proof of virginity by the vulgar, the magistrates, and medical jurists, and often led to very erroneous and unjust decisions by the tribunals. The ancients had a trite phrase regarding it: "Est magnum crimen,

errumpere virginis hymen." It is now universally known to medical practiioners that a thousand causes besides coition may destroy this membrane, as udden exertion of the lower extremities, leucorrhœa, prolapsus uteri, veletiam petulantibus digitis lacerata fuit," excoriations, and various morbid growths, both fluid and solid. It is also well known that it is bsent in infants, or may exist at parturition (Mauriceau, Ruysch, Pare, Meckel, Walter, Smellie, Baudelocque, Capuron, Nægèle). Haller fell nto this error when he said, "Attamen prima Venus debet esse cruenta." here is sometimes a second hymen under the first, examples of which are nentioned by Willis, Ruysch, and Legros. It may form a band across the agina, under the urethra (Smellie, Millot); it has rendered sexual commerce impossible (Hilden, Backer, Merriman, &c.); and in some cases required to be incised, to permit the menstrual evacuation. Its persistence revents coition, and the menstrual discharge, impedes parturition, favours aceration of the perineum (Sherwin, Med. Rec.), increases labour pains Kœymer, Burns, &c.), causes ischuria (Warner, Burns), and pain during efecation (Bardy, Med. Chir. Rev. 1807), and predisposes to convulsions Finney, Med. Com. vol. iii). In such cases it ought to be divided by a crucial incision. The hymen was said to be ruptured in the first coitus, and its emains were called the carunculæ myrtiformes.

The *caruncule myrtiformes* are small projections, which are denied by nany modern physiologists to be the remains of the hymen (Hamilton, Velpeau); they are not exactly in the same situation, and have been seen in nfants and virgins.

M. Velpeau states that of the four carunculæ, which are observed at the ntrance of the vulvo-uterine aperture, and which correspond with the vertical nd transverse diameters of this aperture, the two near the meatus urinarius, md in front of the frœnum belong to the median columns of the vagina, whilst he other two are the remains of the hymen. The first exist in virgins, the econd after coition. It is evident that the latter, which are lateral, must vary n number, size, and situation, according as the hymen is broken into two, hree, or more shreds. These disappear during parturition, but the former re persistent until an advanced age (*Op. cit.* 1835). Behind these is the *rifice* of the *vagina* (*plate* 3, *fig.* 6).

The *perineum anterius* is that portion of soft parts which extends from the nferior commissure of the labia externa to the anus.

It separates the vulva from the anus, and is about an inch and a half in ength (*plate* 3, *fig.* 2. *s*). Beneath the skin and between the point at which he vagina and rectum are in immediate contact, there is a triangular space lled with fleshy fibres, cellular tissue, fat, nerves, and vessels, and which llows of the distension and elongation of the perineum during parturition, o the extent of four or five inches. The pressure on the perineum is from elow upwards, in the axis of the outlet of the pelvis (*plate* 2, *fig.* 2); and ence the necessity admitted by all scientific obstetricians of supporting this art when expanded, with the naked hand applied transversely, from one schium to the other, and of pressing with the index finger the head towards he pubis, while the forehead is being elevated in the same direction along he posterior perineum (*plate* 3, *figs.* 2, 4), with the points of the fingers f the other hand. The escape of the head will be greatly facilitated by hese manœuvres. It is lined by mucous membrane like the vagina.

The *perineum posterius* is the space behind the anus, which extends to the s coccygis (*plate* 3, *fig.* 2, *u*).

The *fossa navicularis* is a space situated between the inferior commissure f the labia and hymen (*plate* 3, *fig.* 1, *h*). The *fourchette* or *frœnum* forms he anterior border of the perineum, and unites the labia pudendi (*plate* 3, *g.* 2, *i*).

The frœnum is often lacerated in first parturitions, notwithstanding the most judicious aid of the most experienced obstretrician, and the inner surface of the inferior commissure often suffers a similar injury to the extent of half an inch or more. The perineum has also been lacerated even through its whole extent, under the management of the most experienced and scientific obstetricians. This happens from excessive action of the uterus, or from voluntary efforts of expulsion on the part of impatient, nervous, or irritable women.

The following particulars relative to the external genitals, ought to be known by every medical practitioner:—

1. From the superior part of the pubis to the clitoris generally measures about two inches and a half, sometimes more or less.
2. From the anterior commissure of the vulva to the anus, three inches and a half.
3. From the clitoris to the posterior commissure of the vulvar aperture of the vagina, an inch and a half.
4. From the posterior commissure of the vulva to the apex of the coccyx, three inches.
5. From the coccyx to the anus about eighteen lines.
6. From the anus to the vulva about fifteen lines; and some lines for the opening of the rectum.

It is also important to know that the constrictor muscle of the vagina, imbedded in the external labia, contracts very strongly in some subjects the vaginal orifice during coition, and considerably diminishes it, and that the pudic artery is so hidden in the inferior strait, that it is rarely lacerated or the cause of hæmorrhage. It is generally felt on the right side of the raphe of the vagina, when labour is advanced, and the head is descending into the cavity of the pelvis. The veins of the vagina are numerous behind the constrictor, and form a retiform or spongy plexus, which becomes erectile during the function of reproduction.

The vulvar aperture is not longitudinal in all mammiferæ, it is transverse in some, and circular in others. In oviparous animals it opens near the rectum inside the anus, and is termed cloaca. The mucous membrane of this canal is extremely sensitive, and secretes abundantly under certain circumstances, as during reproduction and parturition; but there are exceptions. The secretion is supposed to be spermatic by the vulgar, which is an error, as the ovaries are the prolific organs in woman.

Reviews.

A Treatise on the Prevention and Cure of Pulmonary Consumption. By Robert Little, M.D., Professor of Midwifery in the Royal Belfast College, Consulting Physician to the Belfast Hospital, &c. 8vo. pp. 160. London: Longman & Co. 1836.

After having described the complications of phthisis, Dr. Little proceeds to notice the progress and termination of the disease. On these points there is much valuable information.

"The duration of consumption varies very much in different individuals; and this is what is to be expected, on account of the different degrees in which tubercular formations in the lungs are liable to occur. For instance, in a case of tubercular infiltration, the powers of the constitution must give way at a much earlier stage of the disease, than when the tubercles are only few in number, and are situated at a considerable distance from each other; and, again, the rapidity of the progress of the disease must be much greater, when several organs, as well as the lungs, are all involved in the same morbid affection. There is certainly the greatest difference in the rapidity of the progress of pulmonary consumption in persons of different ages; and while it would, in all probability, prove fatal in the course of a very few months, at one period of life

—it would require, at an other, a number of years before the same would be the case; notwithstanding that, in both instances, the lungs were affected to the same extent. When two individuals are labouring under the same malady, no matter what it may be, it is most extraordinary how slow its progress will be in one case, and how rapid in another, when the amount of disease in both instances is nearly the same. The morbid affection which I am considering is, in every case, much modified with respect to its duration, accordingly as the patient is placed in circumstances which are favourable or unfavourable to the rapidity of its progress. Amongst those who are deprived of every thing necessary to preserve the body in a healthy state, as is the case in too many instances with the poor, it must necessarily prove fatal much sooner, than in those ranks of life where every external circumstance is rendered as favourable as possible to the maintenance of the general tone of the system. Every thing that tends to bring the body into a weak state, or to involve various parts in disease, no matter what that may be, will hasten the fatal termination; and it is therefore quite impossible, in different classes of society and places, to arrive at any thing like the truth, with regard even to the average duration of consumption. According to calculations made by Bayle and Louis, it would appear, that in hospital practice, the average duration of this disease might be estimated at about eighteen or twenty months. This may be as correct a calculation as could be made in hospital, or any other kind of practice; but still, from the very great difficulty, which is presented to the physician in almost every case, of ascertaining the time of the commencement of tuberculous disease of the lungs, I cannot see how it would be possible to arrive at the truth, with regard to its duration.

"That there are some cases of consumption which terminate fatally in the course of a few weeks after the first symptoms of the disease manifest themselves, there cannot be a doubt; but that a fatal termination occurs so soon after the commencement of the tubercular formations, I am somewhat unwilling to admit. What is denominated *acute consumption* is, I am satisfied, at least in many instances, a disease of a totally different kind. It is, in fact, nothing more nor less than a modification of pneumonia, resulting from a scrofulous temperament; and is therefore very different, in many respects, from the ordinary tubercular formations which take place in the lungs. I have never seen a case of what might be properly called acute consumption, where the solidified portion of either one or both lungs was not somewhat uniform in its appearance; and, with the exception that it differed in its colour and density a little from the ordinary solidification which results from pneumonia, it was the same in every other respect. I am quite satisfied, that, in almost every instance where the tubercular growths are distinct from each other, their formation had commenced a very considerable time anterior to any symptoms of their presence in the lungs being manifested.

"Instead of the disease in question running a very rapid course, it is, in some instances, several years before it proves fatal; and long ere such result occurs, the health of the patient will suffer a great many changes. It will, for instance, at one time be pretty good, and at another exhibit all the local and general symptoms of consumption: in such cases, the disease assumes a kind of intermittent form. Bayle states that he knew a case of this malady which was of forty years' duration; but, as to such a protracted case, I am inclined to believe, that no man could possibly say whether the pulmonary symptoms, during a very considerable proportion of the time, did not proceed from some other cause than that of the presence of tubercles. The very persons who are the most liable to suffer from such morbid growths, are those who are most subject to be affected with disease of the mucous lining of the air tubes of the lungs; so that it becomes a difficult thing, in many instances, to say positively whether the local and general symptoms of consumption may not have proceeded, for a length of time, from a morbid condition of the membrane in question, independently of any other disease. I am quite convinced that there are very few cases of tuberculous disease of the lungs, which have not been preceded by repeated attacks of pulmonary catarrh; and as this, in consumptive temperaments, is particularly liable to assume the chronic form, it is the more likely to give rise to many symptoms, such as result from the presence of tubercular formations."

Our author next alludes to the curability of consumption, and quotes the observations of Laennec to prove, that caverns which remain after the discharge of pulmonary tubercles, may contract in such a manner that their inner walls will become completely united, and that a perfect cure will be the result. Such cases must be of very rare occurrence, and the tubercles must be isolated, or this favourable change could not be expected. The author is too sanguine on this point, and we are not quite certain of the correctness of the following pathology:—

"The cicatrization of the caverns left in the lungs after the discharge of tubercles, is of very frequent occurrence when such caverns are of a small size, and surrounded with the pulmonary tissue in a healthy

state. It is, therefore, only in those cases where the formations in question are remote from each other, and where the pulmonary tissue by which they are surrounded is in a healthy condition, that a natural cure in either of the ways which I have been considering will likely occur. I think, the complete solidification or cicatrization of such caverns is a far more common mode for nature to adopt in order to effect a cure, than that of the change of their inner walls, in such a manner as to put an end to any farther purulent secretion. In one patient, where the tubercles during life were expectorated at distant intervals, and in an imperfectly dissolved state, and where, at the same time, the progress of the disease was slow, I found, on examination after death, that a great many of the caverns had been completely solidified; but, with reference to the stopping of the purulent secretion, I did not, in this case, observe the least sign of any change in the inner walls of those caverns where cicatrization had not taken place."

The next subject considered is the prevention of consumption. Many of the author's views appear to us extremely questionable, as when he considers that the regimen of the pregnant woman averts predisposition in the fœtus. He offers some judicious observations on the prevention of phthisis in childhood and adolescence, which chiefly refer to hygiene. As we strongly advise our readers to possess the work before us, we refrain from quoting this section of it, and we hasten to place the author's mode of curing consumption before them.

"In considering the treatment of pulmonary consumption, it is necessary, for the sake of clearness, to divide the disease into different stages. For instance, while the tubercular formations remain in the lungs in a crude state, the general and local remedies which are employed must be different, in a very considerable degree, from those which are had recourse to after the process of softening has taken place, and also after hectic fever has thoroughly manifested itself. There are certainly some symptoms which are common to every stage of the disease, and likewise some remedies which are equally profitable at all times; but still the grand objects to be attained, and the remedies which are best calculated to fulfil these objects, are, upon the whole, widely different before and after the process of softening has occurred in the tubercular growths. This is so much the case, that the remedies which would be most effectual for curing it at one stage would most likely accelerate its fatal termination at another.

"Some of those who have written on the subject of pulmonary consumption, even within the last few years, have held out the most gloomy prospects relative to it susceptibility of being cured, no matter at what stage of the disease remedies be employed with the view of fulfilling that intention. I have, however, every reason to think, that it is a malady which is much more capable of being cured, by the use of suitable remedies, provided they be employed at a sufficiently early stage, than one would be thus led to suppose."

If it were possible to detect tubercles in the incipient state, if they did not exist in the fœtus during intra-uterine life, we might assent to the opinion of our author; but we agree with the preponderating majority of practitioners, who admit that it is utterly impossible, in the present state of science, to determine with certainty, the existence of tubercles in a great majority of instances, until they have suppurated, when a cure is rarely, if ever, to be expected. In many cases in which the respiration is dull, both on percussion and auscultation, and other premonitory symptoms of phthisis exist, we have repeatedly exhibited the hydriodate of potass with great advantage, and often with unexpected success; but the remedy has signally failed in many other cases. Numerous intelligent medical students observe our practice, and could attest it, if required. But let us place our author's plan of treatment before our readers.

"The first thing which naturally suggests itself to the physician anxious to cure pulmonary consumption while it is still in its primary stage, is the adoption of such remedies as will promote the absorption of the tubercular formations, and will, at the same time, remove that state of the system on which such formations depend. Now, though this is practicable in a considerable number of cases, yet it is very seldom attempted, at least in such a manner as to ensure any certain degree of success. In endeavouring to promote the absorption of tubercular glands about the neck, or in any other situation, the most suitable remedies which can be employed will prove successful only in a limited number of cases; and no more can possibly be expected when the lungs are the seat of such morbid deposits. The very general opinion which is held at the present time, with regard to the inorganic nature of tubercular growths in whatever part of the body they occur, has, no doubt, led many to believe that all the powers of art can do little for their removal. Now, I am decidedly of opinion, that by the

operation of suitable remedies, the absorption of tubercles may be effected in a considerable proportion of cases, while they are in their primary stage, and while they are thus possessed of a certain degree of vitality. It would therefore appear that the chance of curing a case of incipient pulmonary consumption will depend much upon the time when the requisite remedies are employed.

"*Iodine.*—In consequence of the very decided effects of this remedy when employed for the purpose of exciting the absorption of tuberculous enlargements of the absorbent glands, I have been induced to give it an extensive trial, with the view of fulfilling the same object in tuberculous disease of the lungs; and I have found it decidedly more sure in its curative effects than any other remedy which I have employed with the same intention. Its success, however, like that of every other medicine, will depend on the mode in which it is employed, and also on the proper adaptation of the dose to the powers of the constitution, and the extent of the disease.

"The external application of iodine to the chest is a mode of employing it, at an early stage of consumption, which I consider at once safe and efficacious. When an ointment, prepared by mixing together two parts of the hydriodate of potash, one part of iodine, and ten or twelve parts of simple ointment, is applied to the surface of the chest, especially over that part corresponding to that which is diseased of one or both lungs, in such quantities as to give rise to a considerable degree of cutaneous inflammation, it will mostly be found to produce a great improvement in the state of the affected portion or portions of the lung or lungs, provided its use be continued for a sufficient length of time. I have repeatedly found, after the continued application of iodine ointment to the chest for some months, that all the general and local symptoms, and all the physical signs of the presence of tubercular formations in the lungs, were completely removed; and, instead of there being any indication of the presence of internal disease, such as I am considering, there was every symptom which could be said to indicate a perfectly healthy state of every portion of the pulmonary organs. It is very seldom that iodine is used for a sufficient length of time, in order that it could prove at all profitable for the removal of tubercular formations, when they are present in the lungs. The application of a few ounces of an ointment of such strength as I have just mentioned, would not be of the least avail for the cure of the mildest case of consumption; and I am therefore of opinion that it is a medicine which has very seldom been carried sufficiently far, to prove in many instances of much avail. I have, in some cases, employed altogether several pounds of iodine ointment before there was any considerable improvement produced; and again, in other cases, there was a perceptible improvement before many ounces had been applied to the chest. The quantity used at once should never exceed the size of a hazel nut, and it should be rubbed over the skin in such a manner with the tips of the fingers, that a considerable quantity of it may be absorbed during each application, and, at the same time, that a considerable degree of irritation of the skin may be produced.

"I think, independently of the constitutional effects of iodine, when applied to the surface of the chest in the manner in question, it is productive of the greatest benefit, owing to the irritation of the skin which it occasions. It thus acts in two ways: in the one, through the medium of the circulation giving rise to its alterative effects; and in the other, through that of the skin diminishing the fulness of the pulmonary blood vessels. While it is necessary to employ iodine in the mode in question, with the view of changing the qualities of the fluids, and thus giving rise to a change in the physical condition of the various solid materials of which the body is composed; it should not be forgotten, that, if at the same time these objects are accomplished, the blood is diverted from the interior towards the exterior of the chest, the tubercular formations which are already in existence in the lungs will be more rapidly absorbed, and any further depositions of tubercular matter will be prevented from taking place. It would therefore appear, from what has been said, that the great advantage which results from the use of iodine in the manner which I am now considering, is owing to the combination of its alterative and counter-irritating effects.

"One great difficulty which has been very generally considered in the way, with respect to the use of this medicine in the treatment of pulmonary consumption at an incipient stage of the disease, or at any other stage, is its great liability to weaken, rather than strengthen the system. When applied to the surface of the chest in the manner which I have just mentioned, it will not, in any case, be found to weaken the body; but, on the contrary, impart to it such a degree of tone as will prevent the occurrence of any fresh depositions of tubercular matter, while it will, at the same time, assist in the removal of that which has been already formed. In the use of any remedy that acts through the medium of the circulating system, in the cure of a local disease, it is a most desirable thing to get it introduced into that system, without its producing any disorder of the organs of assimilation. It is frequently the case that a medicine will produce the greatest derangement of the stomach and bowels, that would be most profitable if it were not on

account of the disordered state of these parts, to which it gives rise. It should never be forgotten, that whatever weakens the digestive organs, no matter what it may be, will not only prove unprofitable in the treatment of the disease in question, but will also be productive of the most decidedly injurious effects. I am inclined to believe, that one great reason why iodine has not been more employed in the treatment of incipient cases of pulmonary consumption, is owing to the circumstance of its not having been tried more frequently, in the way I have been considering, to the external surface of the chest. When it is taken internally for the cure of this disease, it should be combined with some light bitter tonic, and also with some grateful aromatic. I may say that I have never found it to disorder the stomach and bowels, when given in such a state of combination; but when administered in the smallest doses, without the addition of any thing, except a proper proportion of water as a vehicle, I have very rarely indeed found it not to disagree with the stomach and bowels so much that it had to be discontinued long before it could possibly have done any good.

"No matter whether the medicine in question be employed externally or internally for the cure of pulmonary consumption, during that stage of the disease of which I have been treating; it is necessary, in order that it may prove advantageous, or even safe, that there should be considerable attention paid to the state of the vascular system during the continuance of its use. If, for instance, it be employed when there is much general or local fulness of the body, it will be productive, in every case, of much harm instead of good: this is more particularly the case when the greatest vascular distension exists in the lungs. I do not, in fact, know any one thing that would appear to me to be more unfavourable to a consumptive patient, in full habit of body, than the use of the medicine in question. It is therefore necessary, when there is any local or general fulness of the vascular system, that this should be reduced by the local or general detraction of the blood, before it is employed in any form. If there be not the strictest attention paid to the keeping down of all excitement of the body during the employment of iodine, no matter in what manner, or to what extent it is used, the tuberculous disease of the lungs will certainly be rendered much worse instead of better. I have always found this medicine unprofitable when there was hectic fever present; and it would appear to me that, as soon as this symptom manifests itself, it should be immediately discontinued."

If the preceding statements be found correct, Dr. Little will have done a great service to humanity. He is opposed to the inhalation of iodine, and has found it injurious. He does not think that this mode of cure can be of any avail in the first stage of phthisis, and may produce inflammation; but never the absorption of tuberculous matter. We very much doubt the last part of this conclusion; because we think it as reasonable to expect, that the application of iodurettted vapour to the mucous membrane of the bronchial tubes ought to produce absorption of tubercles as readily, or rather much more so, as an ointment rubbed on the chest, which must pass through a very circuitous route before it can arrive at the disease in the lungs. The former remedy is in close contact with the diseased structure, and does no good, according to our author; the latter is far from it, and cures the disease. The inhalations of chlorine and other vapours have been found irritating and injurious by our author, in the early stage of consumption. The chlorine caused inflammation in the chest, which required leeching, &c. Counter-irritation is carried too far, according to the opinion of our author, more especially repeated blisters, antimonial ointment, issues, and setons. He prefers oil of turpentine to all these, as the irritation produced by it is more easily controlled, and at all times less violent than that excited by any of the above remedies. He advises the application of turpentine for several months, and informs us, that many patients refuse to employ it for so long a period.

He then notices the comparative merits of emetics, purgatives, blood-letting, mercury, tonics, diuretics, diaphoretics, regimen, and hygiene; and his remarks abound with useful and instructive information. We have now given a full analysis of this very excellent treatise; and have presented our readers with ample evidence of its value. It is in our opinion a judicious and instructive work, both to the general and medical reader.

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Guy's Hospital Reports, No. II. April, 1836. Edited by G. H. Barlow, M.A., Trin. Coll. Cam., Inceptor Candidate of the Royal Colleges of Physicians; and J. P. Babington, M.A. Trin. Coll., Cam., M.R.C.S. 8vo. pp. 414. Plates. London: Highley.

THIS number of Guy's Hospital Reports sustains the character of the medical staff

engaged in its production, and contains much sound practical information. We have already given a part of its contents, by republishing the valuable contributions of Dr. Ashwell and Mr. Bransby Cooper; and we shall now place two very curious papers, from the pen of Sir Astley Cooper, before our readers. They relate to cases of monstrosity, illustrative of an interesting physiological fact; and to a case of fracture of the patella.

The following is the substance of these Reports:—

"In this case, twin children were born: the one was perfect and the other imperfect; but of the structure of the former I have nothing to observe.

"The imperfect child was half composed of a large cutaneous pouch, which occupied the space of the head, neck, and part of the thorax. The remaining half consisted of an abdomen, pelvis, and two lower extremities, the feet of which had been separated, at the time of birth, or afterwards.

"*Bones.*—With respect to the osseous system, many of the bones were entirely wanting, and others quite perfect. Of the former, the bones of the cranium and face, the vertebræ of the neck, the os hyoides, the sternum, and first dorsal vertebra, did not exist. The upper extremities were not formed; and the only bones which were produced belonging to them were the clavicles, but these were not quite perfect.

"The bones which were formed were a portion of the spine, composed of ten dorsal vertebræ and five lumbar. Ten ribs were found on each side; but as there was no sternum, nor any cartilages of the ribs, no distinct thorax was produced.

"The pelvis was composed, as usual, of the os sacrum, os coxygis, and the two ossa innominata. An os femoris, a patella, tibia, and fibula, were perfectly formed in each lower extremity; but of the bones of the feet I am unable to write, as these had been removed before the fœtus was sent to me.

"*Muscles.*—The long muscles of the back existed; but all those of the head, neck, and upper part of the body, were wanting. The muscles of the pelvis, and those of the lower extremities, were perfect. The child was a female, and its external organs of generation were perfect. The anus was open to the rectum.

"The funis entered at the umbilicus, which was placed at the middle and fore-part of the abdomen; and, by its side, a hernia appeared, composed in part, of the small, and, in part, of the large intestine, only partially covered by integuments, and having no peritoneal sac.

"*Veins.*—The umbilical vein, as it entered the abdomen of the child, made a turn to the left side, and passed to the left of the aorta, upon the psoas muscle, when it turned to the centre of the abdomen, and there divided into two large vessels; one distributing its branches to the few existing viscera of the abdomen, to the viscera of the pelvis, and to the lower extremities; whilst the other passed to the spinal cord. The former portion of the umbilical vein sent a large vessel to each kidney, to the capsulæ renales, and to the intestines forming the mesenteric vein: it also, on the left psoas muscle, formed the left femoral vein, and an internal iliac vein for the pelvic viscera. The right femoral vein passed from the umbilical vein behind the bifurcation of the aorta, crossed the pelvis, and descended on the right thigh. Both femoral veins took their course under Poupart's ligament, on the pubic side of the femoral artery, and received the veins of the lower extremities in the usual manner. The latter or second portion of the umbilical vein was sent off from the former behind the left kidney, on the spinal side of the psoas muscle; and it entered the spinal canal on the left side, to form the sinus venosus, which ascended to the upper part of the spine, and sent vessels across, to form a sinus venosus on the opposite side of the spinal canal. So far the injection passed; and thus far the vessels could be distinctly traced, and are preserved.

"*Arteries.*—The aorta began, in two branches, at the upper part of the spine, on the second dorsal vertebra; and they passed under the clavicles, as if going to be distributed to the upper extremities: but, as the arms were not formed, the two vessels turned on the ribs, and supplied the muscles and the integuments of the upper part of the body. The aorta then descended upon the spine, less to the left side than usual, and, arriving at the kidneys, supplied each of those bodies with an emulgent artery, and sent a central branch to the capsulæ renales. Next, it gave a vessel to the intestines, a mesenteric artery; and then, on the lumbar vertebræ, formed its bifurcation. In its descent on the spine, it sent out its intercostal and lumbar arteries. The aorta, after forming its bifurcation, divided into the two iliac arteries, and these subdivided into the external and internal: the external took their course under Poupart's ligaments, on the outer side of the femoral veins, forming the femoral arteries, which descended in the thigh, sending off their usual branches to the muscles and leg, as these parts of the lower extremities were perfect. From the iliac artery on the left side proceeded the only umbilical artery of this fœtus to join the umbilical vein in the funis, and to proceed singly to the placenta.

"The aorta was therefore without a heart; and had no communication with the

veins, but by means of the extreme branches of each.

" *Nerves.*—The brain and the senses, and one-third of the spinal cord, were wanting; but still, in those parts in which the fœtus was developed, the nervous system existed in great perfection.

" The spinal cord began at the second dorsal vertebra, without any bulb, or any projection like a brain; but it was thinner and less perfect at its upper than its lower portion*. It descended in the channel of the spine, formed by ten dorsal, and five lumbar vertebræ, and by the sacrum. In the loins, it gave out its lumbar nerves to the anterior crural nerve and to the obturator. The two last lumbar and three first sacral formed the sciatic and peroneal nerves.

" The peroneal nerve in this subject was easily separated from the sciatic to a point above the pyriformis muscle, even into the ischiatic notch. These nerves were distributed, as usual to the lower extremity, in each of their branches, as far as the feet; which, as I have already stated, had been removed.

" The anterior crural nerve was formed from the four superior lumbar nerves; and it descended under Poupart's ligament, and divided into its several branches, forming its saphenus nerve, which could be traced to the ancle.

" The obturator nerve, in this fœtus, arose from the second and fourth lumbar nerves, and not from the third; and it passed through the obturator foramen to the muscles of the inner and upper part of the thigh, in the accustomed manner.

" The grand sympathetic nerve was very distinct on the left side of the spine. It began in a large ganglion; and then formed five smaller ganglia on the side of the vertebræ, and sent some nerves to the aorta in the usual course of the aortic plexus.

" Thus, then, although the brain and senses were absent, a spinal cord existed from the second dorsal vertebra; and a sciatic, an anterior crural, an obturator, and a grand sympathetic nerve, being found, clearly shewed that they are, naturally, only connected with the brain, and not formed from it.

" *Viscera.*—With respect to the other parts of the fœtus, the heart and the lungs were wanting, and I could not trace any thymus gland.

" The diaphragm did not exist, and consequently there was no distinct limit to the upper part of the abdomen.

" The liver and gall-bladder, the spleen, the pancreas, the stomach, and omentum, the duodenum, jejunum, and the upper part of the ilium, were entirely wanting.

" The viscera of the abdomen which did exist, were, a part of the intestinum ilium, the cæcum with its appendix, the colon, and the rectum, connected to the spine by a mesentery and mesocolon. But the parts which chiefly occupied the cavity of the abdomen were, the kidneys and capsulæ renales, which were of great size, in comparison with other parts.

" In the pelvis, the bladder, the uterus, two distinct ovaria, and Fallopian tubes, and the rectum, were all complete; and in the bladder, the ureters, which were of large size, terminated as in a perfect fœtus.

" Having thus described the anatomy of the placenta and of the imperfect fœtus attached to it, the physiology of this kind of imperfect formation will be found extremely simple, and very intelligible.

" In considering the mode in which the imperfect production may have derived its support, the chief difficulty is, to explain how its circulation could be maintained without the force of the heart's action, as that organ was totally absent. This effect has been supposed to arise from the muscular efforts of the vessels themselves. But the difficulty is at once removed, by observing, that the imperfect child was a mere appendage to that which was perfect; that there was only one placenta, and the blood, which traversed its structure, was derived from the perfect fœtus, and returned to it again; that the imperfect fœtus received, through its own umbilical artery, from that of the perfect fœtus, the current, which, after entering the aorta, and thence circulating through the arteries and veins of the monster, was conveyed back again, by the umbilical vein of the imperfect, into that of the perfect fœtus; and that the heart of the developed child impelled the blood into the other, which was appended to it, in the same way as it caused that fluid to circulate through the vessels of one of its limbs.

" With respect to the placenta, it was, as has been stated, only a single mass: for although there was a funis to each fœtus, the one funis freely communicated with the other, by means of a large umbilical artery and vein.

" When the heart of the perfect fœtus acted, the blood was not only forced into the arteries, but also into both portions of the placenta, and was thence returned by the umbilical vein, in the ordinary manner.

" It is obvious that there are two courses, which the blood in this imperfect being may have taken.

" It is possible that the umbilical vein conveyed the blood into the venous trunks of the fœtal monster, and thence into the branches which communicated with those of the aorta, and thus transmitted blood to the different parts of the child by that artery; and that it was returned to the placenta by

* In the other imperfect fœtus, the spinal cord has a bulbous beginning.

the umbilical artery. This idea is rendered more plausible, by the absence of valves in the umbilical vessels. For in the first imperfect fœtus, the veins throughout its body seemed to be without valves; as the injection everywhere passed from the trunks into the minute branches of the veins; and from thence, in some places, into those of the aorta.

"But it is manifest, that a current of blood flowing in the direction just described would be in direct opposition to one that should pass from the perfect to the imperfect fœtus by the arterial channel, and return thence by the venous; and, moreover, that such an explanation would be liable to all the difficulty of admitting a circulation without an impelling force.

"The other possible course of circulation, which makes the monster dependent upon the normal fœtus, has been already described; and appears to be rendered probable by the present dissections, for the following reasons:—1. That the umbilical artery of the imperfect fœtus was plainly a continuation of that of the perfect fœtus. 2. That the part of the placenta belonging to the imperfect child was manifestly supplied by the umbilical arteries of the perfect. 3. That the entrance of the umbilical artery into the lower part of the aorta corresponded with the greater development of the inferior, than of the superior part of the fœtus, especially of the lower extremity and organs of generation: and, 4. That the absence of a liver and a thymus gland in the monster seems to require that the fluid of nutrition should be derived from another being, in whom this deficiency might be supplied.

"The principal communication of the blood-vessels in the second imperfect fœtus was through the kidneys and capsulæ renales; as those were the organs which were largely developed, and from which the umbilical vein arose. Nor can there be any doubt, that, in the first, a general communication existed between the extreme branches of the arteries and veins; as the injection of the umbilical vein filled its minute branches, and thence caused the coloured fluid to enter the extreme ramifications of the aorta, so that they also were injected. Thus the heart, whilst it impelled the blood into the arteries of the placenta and funis of the imperfect fœtus, forced it, through the minute arteries, into the veins, according to the course of ordinary circulation. Notwithstanding the different degrees of development in these two imperfect beings, there was sufficient analogy, in the mode of deficiency, to render it highly probable that they received their supply of the vital current in the same manner.

"'As long ago as the year 1809, I published an account of the dissection of a fœtus, in which there was no heart; and in which, from such knowledge as I then had on the subject, I was led to believe that the circulation of the blood had been carried on by the agency of the vessels only. Dr. Young afterwards offered it as his opinion, that the circulation in a fœtus of this kind is maintained by the heart of the twin fœtus with which such a monster is uniformly associated. I forget the arguments which Dr. Young used; but I know that they satisfied me at the time, and that I expressed myself to that effect in my lectures at the College of Surgeons.

"'I am not aware that any one else has investigated the subject; and I believe that it has been reserved for you, by the interesting dissection which you mentioned to me yesterday, to prove the accuracy of the conclusion at which Dr. Young had arrived in other ways.'"—*Letter from Sir B. Brodie.*

The history of the preceding case, attested as it is by so high an authority, and the physiological deduction drawn from it by Sir Astley Cooper and Sir B. Brodie, establishes a fact hitherto unexplained. This will be added to the records of physiology in all countries.

The next case is also one of importance, supplied from the same justly honoured source. It is as follows:—

"*The History of a Compound Fracture of the Patella, accompanying a Cast presented to the Museum of the Hospital.* By Sir Astley Cooper, Bart.

"The following history is extracted from a letter which I received from Mr. Lawrence; whose skilful management of the case merits the greatest commendation.

"'On the night of the 15th of July, 1834, I was sent for, to see Captain ——, of the First Dragoon Guards, who had fractured his leg.

"'The accident happened at 11 o'clock P. M. The captain had been dining with some friends, at a distance of twelve miles from home; when returning, at full gallop, the night being very dark, he ran against a waggon which was coming in an opposite direction. His right knee came in contact with the wheel; and, from the violence of the shock, both horse and man were forcibly knocked down. Upon examining the limb, I found the patella broken into several pieces, with an irregular, contused wound, capable of admitting my three fingers, extending into the joint. There had been a free hæmorrhage from the wound, with a copious escape of synovia, but with very little surrounding tumefaction.

"'After washing away all extraneous substances, the fractured portions of bone were placed in apposition, and the wound brought carefully together with sticking-plaster; a compress of lint being put above and below,

to assist in keeping the fragments of bone in contact. A roller was then passed round the thigh, to afford a steady support to the extensor muscles, and brought loosely over the knee. The limb was extended on a well-padded frame, with the heel raised; and the body inclined forward, as far as was consistent with the patient's comfort. An evaporating lotion was applied to the injured part, and an anodyne administered.

"'July 16. Passed a restless night: considerable constitutional disturbance; although the knee looked quiet, and was without much pain.—To take two aperient pills, followed by a black draught.—At eleven o'clock P. M., met yourself and Mr. Vance in consultation; when we determined to take twenty ounces of blood from the arm, to remove the bandage, and apply additional plaster over the knee, extending from the middle of the leg the whole length of the thigh.

"'17. Slept well: bowels had been freely moved: constitutional symptoms relieved: knee looking well.—To continue the cold lotion, with the anodyne at bed-time, and the aperient occasionally.

"'It will be unnecessary to give a daily report of the case. He progressively improved: and as there was no swelling or appearance of inflammation in the knee, the dressings were not removed for five weeks, when the wound was found to have healed by the first intention; excepting a spot, about the size of a sixpence, over the centre of the patella, where the fracture had been most irregular. When this was healed, the patient was directed to make use of slight passive motion in the joint: and at the expiration of three months from the receipt of the injury, he was able to walk with a stick, without much lameness.

"'In looking through the report of the above case, the absence of swelling and inflammation, and the comparatively slight pain after so severe an injury, is deserving notice. This [I think may, in a great measure, be attributed to the manner of applying the cold lotion, which was as follows:—A trough, containing the lotion, was placed over the limb, from which hung several threads of worsted, acting as capillary syphons, and conducting as much of the lotion as was necessary to keep constantly wet a piece of thin linen laid upon the affected part; thus subduing the heat and inflammation by the uniform and constant evaporation produced. This method of applying cold lotion has been in use at our Brighton Hospital for the last two years; and was introduced by Mr. E. Furner, the house-surgeon of that establishment. JOHN LAWRENCE.'

"I have had a cast made of the knee, and presented it to Guy's Hospital. It shews the portions of broken patella, united by ligaments; and covered by an integument, which required some defence, from an elastic knee-cap of Indian-rubber and wash-leather; made by Bigg and Sheldrake. The portions of patella had a lateral motion; and they could be made to approximate by pressure, and to recede on the extension of the limb."

There are many other valuable papers in these Reports, which we shall place before our readers at our earliest convenience.

We need scarcely observe, that these Reports, drawn up by so many eminent physicans and surgeons, and illustrated by numerous beautifully coloured engravings, will find a place in the library of most medical practitioners.

CASE OF TETANUS.

To the Editor of the London Medical and Surgical Journal.

SIR—Should you consider the following case of tetanus worthy a place in your widely circulated Journal, you will oblige,

Your obedient servant,

—— OGDEN, Surgeon.

Rochdale, March 24th, 1836.

A servant girl, aged 17 years, had complained of cramps and pain in the stomach for two or three days, having previously been healthy and robust. Her friends, in whose service she was, attributed the cause of her present indisposition to cold, produced by wearing list, or woollen, shoes, instead of wooden clogs, to which she had been mostly accustomed. On this evening, the 10th of March, the pain extended from the stomach over the abdomen, and violent spasms came on, making the whole body completely stiff. Being called up to visit her at one o'clock on the morning of the 11th, I found her labouring under a violent spasmodic paroxysm, wherein the characters of tetanus were readily recognised, there being complete trismus, and opisthotonos. I bled her to the amount of 18 ounces, administered a terebinthinate injection, and applied a large blister to the spine; giving at the same time 30 drops of tr. opii et æther, to be continued every half hour, which was administered through an opening in the side of the mouth, produced by the loss of a tooth. Simply touching any part of the body, or the act of swallowing liquids, would bring on a fit. She was placed horizontally in a warm bath, and while in this position, the whole abdomen and thorax were rubbed by the hands of an assistant: the spasms increasing, she was taken out in ten minutes. I need not here detail the well known symptoms of tetanus; these the patient had in the severest degree. Calomel, ℈j was administered, followed up by calo-

mel and opium, dissolved in syrup, every hour, without producing any effect in mitigating the spasms, although 500 drops of the tincture opii, and 8 grains of solid opium, were given in 24 hours. It is astonishing to observe how the human body, when labouring under tetanic disease, will resist the operation of this and other remedies which in its healthy state would be more than sufficient to overpower it. The spasms remain general, and violent; the pulse is contracted, hurried, and irregular, from 110 to 140; dysphagia, partial or complete; opisthotonos; intermissive constrictions of the abdomen, by which its surface was flattened, hardened, and contracted towards the spine; excruciating spasms of the diaphragm throughout the line of its anterior margin; acute pain fixed in the præcordial region, and darting into the epigastrium occasionally with great severity. The respiration, too, is similarly affected; but during a remission, both usually return to their ordinary state.

In this state, and at this period, I gave her 3 grains of ant. tart., with 50 drops of tr. opii, and repeated the dose in two hours, which had the desired effect in subduing general spasm, and mitigating her sufferings in a remarkable degree. In six hours after, she took a draught, containing 4 drops of croton oil, which, in conjunction with the terebinthinate enema, operated copiously on the bowels.

On the 13th, the violence of the spasms considerably abated; has slept for three or four hours without interruption; slight delirium in the evening for the first time, and complains also of headach; countenance less distorted, speech not much affected, complains of her hands, legs and thighs, being more painful and slightly cramped. Bowels constipated. Repeat haust. ol. crot. c gutte, iij.

On the 14th, she is now much better, bowels having been freely opened. Tension and pain in the abdomen gone; can move her head without pain in any direction. Her teeth are still too firmly closed to allow her to take solid food. Swallows fluids without difficulty. Lower extremities no longer rigid or painful.

15th. Still improving; can introduce the little finger between the teeth, and is now able to masticate small portions of animal food.

16th. The jaws admit of much more separation than yesterday. Pulse, 76.

17th. I find her this morning sitting up in bed, her countenance is cheerful, and she is much improved; the jaws will admit of a thumb passing into the mouth.

20th. Convalescent.

Observations. — Although the practice adopted in the above case has not the charm of novelty to recommend it, except the large doses of ant. tart., I presume that apologies are unnecessary for submitting it to the public. It would appear, indeed, a duty incumbent on every practitioner to make known the result of the treatment that has been adopted in cases of importance, and more particularly so in those instances in which there exists such a diversity of opinion as in the treatment of tetanus. I should imagine that the success of the above case did not depend upon the action of any of the remedies, except the ant. tart., as most of them have been in general use, and in my opinion perfectly inert. In this case the antimony had an almost immediate, and I may say specific effect upon the general spasm. The liberal use of the emetic tartar, as before mentioned, seems to me well worthy of a trial, with the employment of depletion in proportion to the plethoric state of the patient, and progress of the symptoms. In no case of the whole nosological catalogue is it of more consequence to bear in mind the salutary maxim of the poet—

" Principiis obsta, sero medicina paratur
Cum mala per longas involucra moras."

MEDICAL SCHOOL OF PARIS.

To the Editor of the London Medical and Surgical Journal.

Sir—As a good deal has lately been said in favour of introducing into this country the system by which medical officers are elected to the French hospitals, I shall continue these remarks on the medical institutions of Paris by a brief notice of the concours.

It is well known that in France all medical appointments are made by this system and that this has been the case for some time. In fact, every privilege in the curriculum of professional education must be attained by questions proposed and answered in public; and this from the student of a year's standing to the established physician, or surgeon, who wishes to obtain a professorship.

By concours is understood the public examination and competition of all the candidates for the vacant appointment; and assuredly, when well conducted, no mode yet devised is so well calculated to enable the jury to form an accurate estimate of the relative merit of the competitors. It would seem, however, that it fails to give general satisfaction, and that the unsuccessful *concourants* almost invariably complain of unfairness in the award.

The principal objects of the concours for any of the higher situations, are to ascertain what has already been done for science by each of the candidates, and what are their abilities in teaching. It would obviously be unfair to elect a very young man, who can

only be theoretically acquainted with a science, in preference to one grown grey in the practice of it, simply because the former possesses a greater and more minute acquaintance with the theory of it. To meet this, the first step is to determine the relative merits of their published works on the science in question. This being done, they are examined at great length on the principal subjects which they may be called upon to teach. They have then to write an essay or thesis on some subject given to them by lot, a limited time only being allowed for it. Next they have to deliver a lecture extemporaneously on another disease or subject, also assigned to them by lot. After this they are required to defend their thesis against the objections of their rivals; and, lastly, if the science admit of it, they must give satisfactory evidence of their practical proficiency in it, by performing operations or experiments before the jury. The latter, at the expiration of a certain time after the termination of the trials, give their decision. The number of the jury varies with the magnitude of the prize; its members always consist of professors and agrégés. Before any candidate is allowed to concourer, he must produce evidence of his being a citizen of France, &c.; and prior to entering on the discharge of his duties as professor, when elected to that office, he must take an oath of fidelity to the dynasty for the time being.

The absurdity of such a system, when applied to a pupil of a year's standing, is self-evident. Matters are not much improved when they become eligible for a dressership, as it is clear that the possessor of the greatest share of impudence or self-confidence must frequently carry away the palm from one in reality better qualified for the office, but who has not nerve or volubility enough to deliver his thoughts with clearness. Things assume a different aspect, however, when the disputed appointment is a lectureship, as whatever may be the practical abilities of the parties, it would be doubtful whether an inferior practitioner, with an impressive delivery and a better acquaintance with the theoretical part of a science, would not be more successful in teaching than another of greater practical talent, but deficient in the essential requisite of a sufficient command of language to communicate to his auditors the facts he wishes them to retain.

By the system of concours, each of these points is scrupulously inquired into, and the successful candidate is the one who appears to the majority of the jury to possess the greatest amount of all.

However well this system may work in France, I think the different habits of the profession here and there will always be sufficient to prevent it being advantageously introduced into this country. Probably none of our first-rate physicians or surgeons would succeed, if pitted by concours against a Frenchman of very inferior attainments.

A Frenchman lives in public; an Englishman shrinks from the vulgar gaze. At the same time, perhaps, a modification of the concours might be useful in checking the spirit of nepotism so prevalent in our medical institutions. It can never be so extensively employed in Britain as in France: for English pupils it can never be adapted, as the preparation for public examinations would engross a large portion of the short period of time devoted to regular study in this country; and, above all, it would tend to increase indefinitely the present vicious system of grinding—a system as well known to our continental friends as in England.

ALPHA.

The London Medical
AND
Surgical Journal.
Saturday, April 23rd, 1836.

IGNORANCE OF THE PUBLIC REGARDING MEDICAL AFFAIRS.

WHILE knowledge appears to be progressing with respect to every other science and profession, that of medicine as yet, among the great mass of mankind, is neither appreciated nor thought of, beyond the mere assistance it gives to the sick and suffering. The people at large in this country, are almost entirely ignorant of medical affairs; changes in our laws regarding the profession of medicine have no interest in the eyes of the community; legislative enactments which have for their object a total change in the medical politics of the country, are shut up, as it were, among the members of the profession themselves. In the church and the law, changes and appointments have unbounded publicity given to them by the public press; they go the rounds of our newspapers, and form the conversation of parties in private and in public. A bill brought forward in either House of Parliament, in any way affecting either of these institutions, becomes a topic of general interest, and is debated upon with anxious deliberation; the world is in arms all

at once, if such a bill is brought forward, and its result is waited for with the greatest suspense. How different is it with regard to the profession of medicine. Here, if one of its friends brings a bill before the legislative assembly, in any way connected with medicine, how lightly and how cursorily it is passed over by the public press; and why is this? Surely the science of medicine is not less useful than that of law; surely there are as many implicated in its welfare; as many who ought to be anxious to support it. While men—educated men too—talk of the usefulness of this science, and the respectability of its professors, they have little sympathy with them in common, and take no account of those matters which are of vital importance to them. These people do not deny the advantages of having well-educated medical practitioners, and yet, what do they do to procure such an important acquisition?—why, nothing! The committee respecting medical education was sitting; what did the public know of the matter, or what interest did they take in it? whereas, had that committee been employed in the investigation of some charge of bribery at an election, how its daily progress would have been reported, and with what avidity the decision would have been looked for! but here, in a case implicating more or less the welfare of every individual in the kingdom, what apathy, what unconcern! not worthy of a moment's thought or consideration.

In the New Poor Law Act, how virulent has been a portion of the press against some of its enactments and provisions; with eloquence and power (and properly so) have the sufferings of the poor been depicted; the separation of children from their parents, and of wives from their husbands; and how forcibly have some of the privations of the children of poverty been pourtrayed. But in regard to the appointment of medical officers to the poor, what silence has reigned! though the well-educated, respected, and experienced practitioner has in many instances been ousted by the petty tyranny of a self-elected board of guardians, and a young, ignorant, worthless individual substituted—who had only one thing to recommend him—the honour of having been a recreant to his profession—a recommendation probably well appreciated by his electors! and yet, what interest have the public taken in these matters—what have the public press done to overthrow these iniquities? Literally nothing. True it is that a few letters have found entrance into some of our leading journals, but they have been generally passed by as nothing—as worthyof no comment and of no support. And yet, with what energy, and with what industry will these journalists write on revolutions in states thousands of miles off, and with which we can have little sympathy. If they are friends to their poor countrymen, or friends to science, they certainly have an odd way of shewing it.

With respect to quackery, hydra-headed and devouring as it is, sapping the strength of the people, and filling the churchyard with its victims, how have the public press treated this matter? why, by passing over the murders committed by its worthless upholders, with silence, or by rather favouring their crimes, while their columns are hired by cold-blooded assassins, to vaunt off their nostrums; which, while they bear a similarity to Pandora's Box, in giving issue to all kinds of evils and diseases, have not, like that fabled gift, hope remaining at the last.

The income derived from quack advertisements by the proprietors of the public press is so immense as to silence that mighty engine. Not a syllable appears against nostrum-mongers, and the best of all public instructors hire their pages to every unprincipled knave who chooses to propose his cure for all diseases, or for incurable maladies. The multitude swallow the bait, and take for

granted every promise and falsehood published by empirics in the newspapers. Thus this fourth estate, the great public instructor and controller, issues every species of puff, humbug, and immorality, provided advertisements are paid for; and aids in imposing upon the credulity and gullibility of the immense mass of fools that constitute the public.

REFORM IN THE COLLEGE OF PHYSICIANS.

An attempt is now being made by the College of Physicians to obtain favour with the government founders of the Metropolitan University, by granting licences on the same terms as the Apothecaries' Society; and by this means expecting to be appointed medical examiners in the new institution. The folly and injustice of this attempt amply deserve exposure and censure. The College, for centuries past, required the doctorate, and that from Oxford and Cambridge, for the fellowship, or from some University for the membership; and after putting the present fellows and licentiates to vast expense and trouble, now propose to dispense with two years' residence at a University, and with a medical degree!! If this plan be adopted, the College ought, in honesty, return the large fees it has received from the present fellows and licentiates, and only retain the sum henceforth to be demanded of their successors and contemporaries. But what becomes of the academic education, the high moral feeling, &c., &c., of the University men? alas! what a falling off is here. What becomes of the exclusives, the grade-makers, and how are their successors to be elected? All to be swept away, because a liberal and enlightened government is about to establish a University in the metropolis of England, which ought to have existed for centuries past.

The eyes of the College are at length opened, after a lethargy of three centuries, during which the chirurgeons and pharmacopolists have nearly strangled their unfortunate parent. She now vainly attempts to chastise her unruly progeny, but her powerless efforts are insufficient. Nevertheless, it must be admitted that the rising members of the profession would infinitely prefer receiving licences from the College of Physicians, than from the Apothecaries' Society; but then, such licences cannot infringe on the act of 1815, or enable the possessors to practise pharmacy, while that statute remains in force. There are, however, an immense number of those who obtain the qualification at Blackfriars, who, for the honour of the thing, would pay an additional ten pounds for the licence of the College; but the question is, will not such individuals prefer degrees from the intended University, for the College has no power to confer the title of doctor. It may be anxious to possess the double privilege of first examining for the degree, and then for the licence. But, with all its misdeeds, it will not be suppressed; but time alone can reveal the position it is destined to sustain in the republic of medicine.

We next come to the question, will the new University give degrees in surgery? If this should be the case, what becomes of the College of Surgeons? Astounding question! Either this body, which has no legal existence, will or will not form a part of the new University. It must share the fate of the College in Pall Mall. Were degrees in surgery given as in France, by the Metropolitan University, the chartered body in Lincolns Inn Fields should cease to have a habitation or a name. Lastly, what is to become of the Society of Apothecaries, which has done more for advancing the interests of medical science, and the respectability of the profession, than both the Colleges? Oh! this march of intellect is a sad annoyance to antiquated institutions. We are free to admit that the Colleges, with all their faults, and they are countless, have done a vast deal of good, and for many years have upheld the respectability of the profession; but they have slumbered, and allowed the company of druggists, commonly called the Society of Apothecaries, to throw them into the shade. To use a popular phrase, "small blame to the Apothecaries."

But now the profession in England, and consequently in the British empire, is "in confusion worse confounded." It cannot remain as it is, it must be altered; but how

he change is to be effected is in the bosom f futurity.

Since the above was written, we have earned that the blow is struck; Oxford and Cambridge are thrown overboard; the College f Physicians throw open its doors on the ame terms as the Apothecaries and College f Surgeons; residence at a University for wo years is no longer required, and the icence is offered to all who have obtained he present course of medical education equired by the London boards. The *alieni omines* vel minus docti are henceforth to be ellows, as also the new licentiates. *Vivi ervenimus.* It is come to this; the insolent nd long-maintained monopoly of the College is scattered before the winds, and these nti-reformers are at length compelled to dopt measures which they ought to have proposed centuries ago. They hope by this iberality to be hooked to the Metropolitan University, and to annihilate their worships t Blackfriars. A sentence in the University ill might abolish the Apothecaries, by empowering the College of Physicians to grant licences to general practitioners.

FREE HOSPITAL, GREVILLE STREET.

The following intimation to the medical profession, has appeared in our weekly contemporaries of the 16th inst., doubtless on account of their apathy on the unprecedented insult offered to the profession, by the expulsion of one of the surgeons and the apothecary, to use a popular expression, without "rhyme or reason," and by a packed meeting of persons not having any right to interfere, and of partisans.

"Free Hospital, Greville-st., Hatton Garden.—The situations of consulting physician, surgeon, and of resident apothecary to this institution being vacant, gentlemen desirous of becoming candidates are requested to send notice to the secretary, with their testimonials, on or before Friday, April 22, at 8 o'clock in the evening, when the committee will meet to receive them. The elections will be by ballot, and will take place on Friday, April 29, for resident apothecary, and on Tuesday, May 17, for consulting physician and surgeon.

"Particulars may be obtained at the hospital, between the hours of three and five daily.

"By order of the Committee,
"W. H. Fenn, Sec.

"Board-room, April 9."

Who ever saw before of an advertisement for a consulting physician and surgeon to a dispensary, more especially when no such officers had hitherto existed, and the ordinary officers having resigned? Only think, gentle reader, of an advertisement for a consulting physician and surgeon to an institution, whose notification ought to be as follows:—

"Wanted a consulting physician and surgeon to the Free Hospital, Greville Street, Hatton Garden. Candidates to be members of the Royal College of Physicians or Surgeons in London, and to be ready to be kicked out of office, when any one or more of the ordinary medical officers may think proper to pack a meeting of persons not governors, with certain unprincipled peculators who may be governors. "Gentlemen desirous;" who are they? "of becoming candidates, are requested to send notice to the secretary, &c."

What member of the profession has heard of an advertisement for consulting physician and surgeon to an hospital, or more properly a dispensary? All our readers know, that consulting physicians and surgeons are invariably those who have officiated as ordinary medical officers, and that the offices are nominal and honorary. We never yet heard of an instance, where any physician or surgeon was appointed as a consulting medical officer, unless he had served the office of ordinary physician or surgeon to the hospital dispensary.

We beg our readers to fancy an advertisement similar to the above from Guy's Hospital:—

"Guy's Hospital.—The situations of consulting physician and surgeon being vacant, &c."

Suppose the consulting physician and surgeon to Guy's Hospital were the late Dr. Babington and Sir Astley Cooper, who after having officiated as ordinary medical officers to the institution for twenty or forty years, had resigned in disgust, that such an intimation were given to the profession at large. We beg to ask, is there one physician or surgeon of the slightest eminence, who would become a candidate for the vacant offices under such circumstances. Is there one, who is member of the College of Phy-

sicians or Surgeons in London, who would disgrace himself by becoming a candidate, and subject himself to the unprecedented position of being expelled at any moment like a menial, without the slightest reason? If there be such an individual belonging to either College, (which we do not think), we pity him, and would consider him a disgrace to the profession.

THE NEW POOR LAW MEDICAL CONTRACTS.

Complaints continue to reach us of the iniquitous and tyrannical contracts forced upon country practitioners, under the New Poor Law Act. The proceedings of vestry meetings in some of our parishes, display scenes of such a revolting character, that we almost shrink from the perusal of their details with horror. Men who call themselves guardians of the poor, trafficking in the tears and sufferings of their pauper neighbours, for the sake of a few paltry pounds per annum, threatening to withhold from them the assistance of an experienced and known practitioner in their hours of agony and sorrow! Protector of the poor! Protection they afford indeed!—yes,

> "The protection vultures give to lambs,
> First covering, then devouring them."

Have these men no human feelings? are any of them fathers?—they must be. Brothers they are, and yet they "gage and span" the sufferings of their fellow mortals, forgetting that their own children may be at some future time, and that not far distant, subjected to the treatment of an ignorant and rapacious practitioner, who has been hired, at low wages, in the face of honesty, justice, and mercy, to sport with disease and death!

It is useless appealing to the feelings of such men as these; these "tigers," worse even than tigers—mercenary dealers in human misery! We call then upon the legislature, upon Parliament, in the most earnest manner, for a remedy for these evils; we call upon them to take the power of electing medical officers out of the hands of the self-constituted board of guardians; we call upon them to give that protection to the profession, which it had a right at their hands to expect. Let petitions from all parts of the country be forwarded to both the Houses of Parliament, calling on them to adopt such measures of justice—till the tables grown beneath the weight—these petitions will not be treated lightly. They cannot; it is the cause both of justice and of humanity!

LONDON MEDICAL SOCIETY.

Monday, April 18th, 1836.
MR. CLIFTON IN THE CHAIR.

Acetate and Carbonate of Lead—Paralysis from Lead.

The discussion on the acetate of lead, which we reported in a late number, was resumed this evening.

Dr. Sherman wished to know the experience of the Society with regard to the relative effects of carbonate and acetate of lead. It was an axiom, that the greater the solubility of a preparation of a metal in the animal fluids, the greater the effects on the system. Now, if acetate of lead was less poisonous than carbonate, it was opposed to what was the case in all other metals: for in them the acetates are invariably more poisonous and active than the carbonates. He thought that when a superabundant quantity of acetate of lead was given, the dose should be diminished, and not acetic acid administered, as had been recommended and practised; and if a small quantity of carbonate of lead was as effective as a large quantity of the acetate, why not give that instead? Had any member seen cases in which the acetate of lead had produced poisonous effects?

Mr. Howell never heard of acetate of lead doing any harm; he had frequently been in the habit of giving four-grain doses: he remembered a case some years since, in which a man swallowed two drachms of it in half a pint of ale, and no ill effects followed.

Dr. Johnson thought too much dread existed with regard to the administration of the acetate of lead; he had given six and eight-grain doses three times a day for several days together. The late Dr. Latham used to say of it, "that it might be eaten like lumps of sugar." He (Dr. J.) had used the acetate of lead for thirty years past, and had never known a single instance of its doing harm to any extent; he had seen obstinate constipation come on while using it, but as opium was always combined with it, the constipation might have depended considerably on that.

Mr. Dendy remembered the case of a young lady, who had hæmoptysis to a great

extent, and which continued, despite of blood-letting and other remedies. He had in that case given as much as ten-grain doses of the acetate of lead three times a-day for several days, and there was no perceptible effect from it: the young lady recovered, and is now in good health.

Some discussion ensued with regard to paralysis from lead.

Mr. Bryant thought that partial paralysis in painters arose from their using their arm so much in the act of painting. It was rather curious, in these cases, that they could use the flexor muscles, while the extensors were paralyzed. Dr. Pemberton had recommended the use of splints in this affection, but on what principle he had not said. He (Mr. Bryant) thought that Dr. Burne's explanation of the cause of this paralysis was the best—that the muscles being kept constantly on the stretch, do not return to their natural position.

Mr. Greville Jones said that it was the opinion of painters generally, that the disease arose from the application of lead to the affected parts. Old painters, who keep on their sleeves during work, and who are careful of themselves, seldom have paralysis, whilst it is very common amongst the younger and more careless workmen.

Dr. Leonard Stewart had seen cases in which partial paralysis had been produced by the application of Goulard's extract; he had seen paralysis of the penis from this cause.

Mr. Pilcher had examined a patient who had been under Dr. Elliotson, in St. Thomas's Hospital, and died there of colic; he had paralysis of the arm: on examining the muscles of it after death, a white substance was detected in the texture of the extensor muscles, which, though not analyzed, was considered by Dr. Elliotson to be carbonate of lead: the flexor muscles had not such a deposit.

After some further discussion, the Society adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 16th, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Tumour in the Abdomen—Tests for Iodine.

The President stated, that as several members had expressed a wish that there should be an extension of the period of the Society's meetings, the Committee had decided on adding a clause in the bye-laws, "that the meetings of the Society should commence on the third Saturday in October, and terminate on the last Saturday in April;" that additional meetings should be held during the month of May, on such evenings as the Committee might think proper.

Tumour in the Abdomen.

Mr. Hale Thomson exhibited a rather curious tumour, which had been found in the right iliac fossa of a man, who died apparently from disease of the lungs. On opening the abdomen a tumour very much resembling a boiled egg, divested of its outer covering, and perfectly unattached, was found floating in the fossa. On cutting into it, an orange-pip was found in the centre, round which there seemed to be a thin deposit of lime; round this again was a layer of coagulable lymph, and the outer covering appeared cartilaginous.

Dr. A. T. Thomson remembered a fatal case very much resembling that mentioned by the last named gentleman; it was the case of a young gentleman who died with all the symptoms of inflammation of the caput coli. A tumour was found in the vermiform process, resembling the tumour in the above case, only not quite so well formed. It contained a nucleus, an orange-pip, surrounded by a layer of carbonate of lime. It was attributed to the patient's having eaten oranges on a very hot day about eight month's before.

Tests for Iodine.

Dr. A. Thomson introduced to the notice of the Society two tests for the detection of iodine. After making some remarks on the importance of being able to detect the presence of iodine in the secretions, and the advantage of having infallible and delicate tests as well as simple ones, Dr. T. said he believed he should be able to exhibit two tests for the salts of iodine, which bore the above character. These two substances had the power of decomposing all the salts of iodine in any fluid, whether simple or mixed. As far as his experience went, all the salts of iron when carried into the circulation became hydriodates—by what process he could not pretend to say, but he had discovered hydriodates in most of the secretions of the body. The two substances which possessed the power of testing these salts were nitro-muriatic acid and nitrous acid. Dr. Thomson performed a number of experiments. In the first place he took a solution of hydriodate of potash, 1 grain to 140 of distilled water; a small quantity of solution of starch was put into the liquid; a single drop of the nitro-muriatic acid was added, and a beautiful purple precipitate (the iodide of amylum) was the result; a drop of nitrous acid was then applied to a similar solution with the same effect. Experiments were also made on hydriodate of potass contained in milk, 1 part in 76; tea with 1 in 100; the urine of a patient, who had been taking hydriodate of potash and hydriodate of iron for two days, diluted with 20 parts of water. All these experiments were highly satisfactory. Nitric acid will not act as a test unless added in considerable

quantity; neither will sulphuric acid, unless a large quantity of the salt of iodine be present. Those salts of iodine, which were less soluble than the hydriodate, could be tested by means of the nitro-muriatic acid and the nitrous acid. Chlorine, when used in a state of gas, shewed an immediate effect, as did also the nitrous gas; though in the last, from its gravity being less than that of atmospheric air, some difficulty might arise in pouring it from one vessel into another. These gases would test iodine in any liquid, even in those which the other acids would not under any circumstances effect. The former tests for detecting its presence in burnt sponge, which was supposed to contain a salt of iodine, were very difficult and operose. If, however, the hydriodate of soda contained in it was formed into a hydriodate of iron, by the addition of proto-sulphuret of iron, the tests now brought forward would immediately be found to answer. Dr. T. had detected iodine in the saliva, and in the perspiration.

Mr. Bird acknowledged the tests as very delicate and beautiful, but considered them not original, as Berzelius had mentioned them in one of his late works.

Dr. Thomson contended that no chemist had ever yet mentioned chlorine gas as a test for iodine. The muriatic acid had certainly been recommended, but this was a fallacious test, for if a drop more than necessary was added, the blue precipitate would be dissolved, and consequently the test would be fallacious.

MEDICO-BOTANICAL SOCIETY.

Wednesday, April 13, 1836.

EARL STANHOPE, IN THE CHAIR.

Ergot of Rye.

A paper was read by Dr. Sigmond, on the Ergot of Rye; it contained an elaborate history of its introduction into practice, the cause of the prejudices that existed against it, and a narrative of the experiments that had been tried by the medical profession, which led to its general adoption. He dwelt upon the disease of ergotism, and threw out some hints as to the malady at present committing such ravages amongst the British troops in Spain, and which, from the description received of its symptoms, he had every reason to believe originated from an ergot being mixed with the bread. The disease commencing with congestive fever, terminating with gangrene of the lower extremities, was well known to be the consequence of the food containing this impure species of grain. He spoke of the analysis of the diseased grain, as made by Mr. Battley, which was as follows :—

By pharmaceutical analysis it is ascertained that the constitutents of the secale cornutum are :—1. Resin; 2. Extractive; 3. A highly volatile principle; 4. A free acid, (muriatic); 5. A peculiar animal matter; 6. Inert matter.

When subjected to combustion it is shown to contain :—1. Muriate soda in a large proportion; 2. Sulphate soda in small proportion; 3. Inert matter.

Distilled water abstracts from the diseased secale cornutum, the constituents No. 1 to 5 above-mentioned, to a great extent, and if due regard be paid to the operation, in condensing to a state of extract, the whole of the constituents previously absorbed by the water, may be reproduced.

Five and a half grains of the watery extract, made by cold infusion, are equal to thirty grains of the secale cornutum; or one fluid-drachm of the liquor is equivalent to one drachm of the powder of the seed.

By this it will be seen he conceives muriatic acid to be present, whilst Vauquelin contends that it is phosphoric acid.

At the conclusion of the paper, which we shall give entire in an early number, Mr. Everitt said that he himself would undertake to make an analysis, as he could not feel satisfied that the presence of free muriatic acid was fully proved.

Sir Alexander Crichton, Dr. Macreight, and Mr. Iliff, made some observations on the employment of the ergot.

It was announced at the conclusion of the meeting, that the president, Earl Stanhope, would deliver his annual address, Wednesday May 11th, at the Royal Institution, the Managers having kindly lent their theatre on the occasion.

NORTH LONDON HOSPITAL.

Severe Case of Pneumonia.

Elmira Parker was admitted Feb. 27 under the care of Dr. Elliotson: she is twenty years of age, and is a kitchen-maid. Three months ago she had small-pox, from which she completely recovered, and returned to her usual employments till rather more than a week since; she caught cold from coming down stone stairs without her shoes one morning.

She continued to get worse to the present time, when the following symptoms presented themselves: Pain in the head, white tongue, red at the tip; thirst; alæ of the nostrils and lips everted on expiration; throat sore; hard and difficult cough, without expectoration; quickened respiration with mucous rattle, and crepitant wheeze heard distinctly on both sides of the chest particularly at the superior portions; tenderness at the epigastrium; no sickness or pain; bowels relaxed by medicine; pain in the back; urine scanty, and high-coloured

menstruation irregular—always has been so, sometimes occurring at intervals of six weeks and two or three months: pulse full, soft, easily compressible, quick, 112: has had rheumatic pains in the knees, ancles, and wrists; the right knee is at present swollen, hot, and painful: sweated copiously on her admission.

V. S. ad deliq., ℥ xxvi., Emp. Canth. magn. pectori. Cal. gr. ij, quaque hora. D. T.

29th. Blood much buffed and cupped: a little better: breathes with less difficulty: skin hot and dry.

March 1st. The blister having healed rapidly, another was applied: gums tender: thirst urgent: a little better on the whole: pulse 100. Omit the calomel.

Liquor. antim. tart. 1 drachm every second hour. A pint of milk daily.

5th. Cough better: not so thirsty: can take a tolerably full inspiration without pain: crepitant wheeze not so audible: very loud mucous and sibillant rattles.

7th. Violent pain in the left lumbar region: pulse very quick: much troubled with the cough. Twelve leeches to be applied to the left side, and afterwards a linseed-meal poultice.

8th. Pain in the side nearly gone: feels better: coughs less, but does not expectorate: slept well last night: not sick or nauseated by the medicine. The liquor. antim. tart. to be increased to a drachm and a half doses.

10th. Slight tenderness of the epigastrium: cough troublesome: not hot or thirsty: tongue red at the tip and edges: rheumatism of the right knee has disappeared.

12th. Getting better.

15th. Sickness now comes on after each dose of the antimony, which was therefore omitted. Continued to improve until the 29th, when she was discharged well.

Dr. Elliotson remarked, that this was the most severe case of pneumonia he had seen. With regard to the exhibition of the tartarized antimony, it was a curious fact, that it might be given for a length of time in rather large doses without producing any sickness, as in the above case; but that when sickness eventually occurred, it continued to be excited by every dose of the medicine, even though the dose might be diminished in quantity.

Foreign Medicine.

Chronic Ocular Phlogosis—Periorbital Frictions with Mercurialised Belladonna Ointment—Amelioration.

A YOUNG soldier, of scrofulous constitution, affected, besides several atonic ulcerations of the right fore arm, with an intense double ophthalmia situated on the globular conjunctiva and cornea. Several interior tonic remedies were unsuccessfully employed; setons and blisters produced no better results; and though the patient positively asserted that he never had syphilis, M. Poirson ordered him to use frictions round the orbit, of mercurial ointment, with belladonna. An amelioration of the symptoms speedily followed the last remedy. Every thing seems to promise that this patient will be cured by the continued use of these frictions. We think, however, that a lotion composed of one grain of nitrate of silver in solution, to an ounce of rose-water, would greatly hasten the favourable termination of this affection.—*Gaz. des Hop.*

—o—

Treatment of Small Pox by Cold Baths.

Berardino Meloni, a young soldier, of sanguine temperament, and robust constitution, was attacked in November, 1834, with confluent small pox.

After the usual premonitory headach and irritation of the throat, the pustules began to appear, at the end of the third day, with great cerebral congestion, a full pulse, meteorism, and constipation. On the fifth day, the pustules were numerous; though the proper treatment was resorted to, by purging the patient several times, and employing sanguine depletions, yet the cerebral phenomena sensibly increased, and it was thought better to promote the eruption by giving nitre emulsions. The exanthemata became confluent; the patient was seized with delirium, from the intensity of the cutaneous heat, breathed with difficulty, was continually tossing about, and changing his position every instant; he could no longer swallow; the head and chest were so much affected that he seemed in danger of being suffocated. In this state he was like a corpse, and was plunged into cold water. He was quite insensible, and the surface of the body was in a dreadful state. He experienced instant relief, which was more sensible as the water of the bath became heated more rapidly by the abstraction of the morbid caloric. He was replaced in bed, and remained tranquil. The next day he was able to open his eyes slightly; the pustules were more confluent, and more developed; the difficulty of respiration and coma sensibly diminished; deglutition was more free. The nitre emulsion was continued, and the cold bath was repeated, into which the patient was put three times in the course of the day, and always with sensible amelioration.

The same practice was followed for some days after; the patient remained in the bath seven or eight minutes, until the water had acquired a temperature indicative of a considerable emission of morbid caloric. The course of the disease was thus arrested; the

cerebral symptoms disappeared, and the patient only suffered from the consequences of the dreadful cutaneous eruption which pervaded the whole surface of his body, and subjected him to all the inconveniences of a long and wearying suppuration.—*Gaz. Med.*

ROYAL COLLEGE OF SURGEONS IN LONDON.

THE following circular has just been issued by the Royal College of Surgeons. Few will be inclined to dissent from its object or contents.

"*To Gentlemen applying for the recognition of the Royal College of Surgeons in London, as Teachers of Anatomy and Surgery.*

"The Council of the Royal College of Surgeons deem it essential that Teachers of Anatomy should be provided with the Preparations of Parts mentioned in the following Schedule, intended to comprise those preserved, injected, or otherwise prepared Structures which cannot be adequately demonstrated in the recent subject.

"1. Artificial Skeletons, Male and Female.

"2. The several Bones of the Skeleton, including the separated Bones of the Cranium.

"3. Sections of the Cranium.

"4. Preparations showing the Structure and Growth of Bone.

"5. The component Structures of the various Joints.

"6. The Deciduous and Permanent Teeth, their structure and formation.

"7. The Mouth, Salivary Glands, Fauces, and other parts concerned in deglutition.

"8. The Organs of Digestion and their Appendages; exhibiting the structure of the Alimentary Canal, of the Glandular and other parts concerned in the digestive process.

"9. The Thoracic Duct, the Lacteals, and the other Absorbent Vessels, with their Glands.

"10. The Heart, exhibiting its structure in the Adult and Fœtal states; and the parts concerned in the circulation of the Fœtus.

"11. The Blood-vessels, their structure, arrangement, and distribution.

"12. The Larynx, the Trachea, and the Lungs, with the distribution of the Air-tubes and the Blood-vessels.

"13. The Brain and Spinal Chord, with their Membranes.

"14. The Nerves, their origin, structure, and distribution.

"15. The Organs of the Senses:

"1. Of Sight: the Globe of the Eye, its component Textures, the Lacrymal Apparatus, and its other Appendages.

"2. Of Hearing: the various parts comprised in its external, middle, and internal divisions.

"3. Of Taste: the Tongue, its Nerves, and Papillæ.

"4. Of Smell: the Nasal Chambers, the communicating Sinuses, and their lining Membranes.

"5. Of Touch: the peculiar conformation of the Skin instrumental thereto, with the structure of the Common Integuments and their Appendages.

"16. The Urinary Organs; showing the structure of the Kidney and Ureters, of the Bladder, the Urethra, and Cowper's Glands.

"17. The Male Organs of Generation, exhibiting the structure of the Testis and Vas Deferens, of the Vesiculæ Seminales, of the Prostate Gland, and of the Penis.

"18. The Female Organs of Generation in the unimpregnated and gravid state.

"19. The Peculiarities of the Fœtus.

"It is expected that Teachers of Surgery should have the means of illustrating by suitable preparations those points in Pathology and Practice which are treated of in Surgical Lectures.

"EDMUND BELFOUR, *Sec.*"

"*March* 15*th*, 1836.

Royal College of Surgeons in London.

THE Jacksonian Prize for the year 1835, has been adjudged to Mr. Frederick Ryland, of Paradise-street, Birmingham, for a Dissertation on Injuries and Diseases of the Larynx, also of the Trachea, and Treatment.

New Work.

MR. WARDROP has a work in the press on the Pathology and Treatment of the Diseases of the Heart, appended to which are some Physiological Researches on the Circulation of the Blood.

NOTICES TO CORRESPONDENTS.

J. B.—Dr. Cummin is preparing a work on the subject, and that is one reason why he abused the publication. This is well known to our town readers.

T. C.—The Title and Index of Vol. I. is to be had at 356, Strand. If of Vol. VII., which our correspondent may mean as our series, it shall be forwarded as he requests.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

Mentha viridis.

Mentha Pulegium.

THE

London Medical and Surgical Journal.

No. 14. SATURDAY, APRIL 30. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE VII.

Inflammation continued—Its Treatment—Hæmorrhage—Fluxes not sanguineous.

I have already adverted to the difference of the inflammatory state, founded on its locality, and exciting cause; but I will, before entering on the consideration of its management, mention one or two further particulars, which the medical practitioner ought to recognize, both in reference to its symptoms and pathology.

I have often heard it asked, whether hooping-cough is a disorder of the stomach or the lungs? If I answer, it is both, and neither, and that it is rather more particularly and properly an inflammation, or irritation at least, of the bronchial membrane, or of the membrane lining the bronchial cells, I do not give, in one sense, a precise and proper reply to the query; since bronchitis may exist without hooping-cough; and, moreover, when it does so exist, the degree of inflammation may be similar in both cases, but they are distinguished by a something of peculiarity, which renders the remedial requisites different. So much for variation, as referrible to exciting cause. But locality, as I have before intimated, constitutes another essential difference, even when the quantum of morbid action, age, and the kind too, is in a manner similar. Thus, inflammation of fibrous and ligamentous substance is not characterized by so much variety in the pulse as inflammation of other structure. In rheumatism you have often very violent pain—you have even much systematic disturbance; but you have not the celerity of arterial beats in anything like correspondence; and, moreover, this inflammation does not manifest the tendency to suppuration or gangrene, as does the irritation of parenchymatous substance, or other than fibrous membrane. Then, again, serous membrane, when inflamed, gives a remarkable and characteristic hardness to the pulse, while membranes which secrete mucus may augment the pulsations in number, without increasing them in wiryness. Thus, how different do we find bronchitis and pleuritis (the one being an inflammation of a mucous surface, the other of an investing, serous membrane), in the sort of pulsation which they induce, even although the cause which shall have induced them be one and the same.

I may just further remark, as a circumstance necessary to remember when we are considering the totality of circumstances connected with the inflammatory state, that the veins and arteries themselves are obnoxious to inflammation, and that in this case a series of symptoms is set up, which we shall afterwards find opportunities to descant upon. Even the neurilima, or very fine membrane which forms a sheath to the nerves, is obnoxious to the disordered condition under remark; and here we have occasionally, but perhaps not so frequently as has been assumed in modern times, merely nervous symptoms dependent upon an inflammatory cause. On this last particular I shall have occasion to enlarge when, in our next division of the course, the subject of brain and nervous ailment will be descanted on in a nosographical manner. Lymphatic inflammation, too, as an especial deviation from health, must come under our cognizance.

I now, then, proceed to the treatment of inflammation generally. The radical indications of remedy are—1st, to withdraw or divert impetus; 2ndly, to equalize the circulation; and, 3rdly, I would say, to promote absorption. The principle of lessening morbid sensation, and of restoring nervous power, are also, although not perhaps primary objects, are exceedingly important items in the treatment of inflammation.

I imagine, indeed, from what I have learned of the homœopathic, as opposed to the allopathic system, that these last are, with the abettors of that system, the prime indications of treatment; and both of them,

and of good sense, we ought to learn the lesson, that the nervous irritation set up by inflammation demands most assiduous attention. I cannot tolerate that theory which thinks of the disorder, to the exclusion of the patient, and which cannot take any thing into account but blood and blood-vessel.

But, to return to our topic, I would then again call your attention to the principle previously inculcated, that while the most passive or asthenic kind of inflammation implies commotion and inordinate irritation, that we are called upon to subdue; on the other hand, the most sthenic, or tonic, implies some sort of vascular weakness. How, I would again ask, is it possible for more blood to be forced through vessels than nature ordained them to convey, without such conveyance or transmission being caused by a deprivation of tonicity, or resisting power to a *vis-a-tergo* impulse?—it may have been induced by that impulse, I grant you, and indeed I have already stated that it is so; but still the weakness is present, and part of the curative process should have respect to its presence. When, then, I place blood-letting, as it ought to be placed, at the head of remedial measures for the subduction of the disease, I would say that, in thus necessarily withdrawing the *vis-a-tergo* impulse, we must be careful that we do not too much add to the vascular or capillary weakness. Again, it will be recollected, that I have intimated the impossibility of simple reduction; the change we are considering implies a degree of disorganization; there is effusion of lymph—there is the pushing out of new fibre: now, this effusion must be absorbed; and, as it results from the present condition of the capillaries, we must be especially careful how we manage this capillary condition, otherwise we may assist that very effusion which it is our anxious desire should be impeded. I am not an advocate for half measures. I will admit that some conditions demand blood-letting *ad deliquum*, especially when these conditions are disorders of serous membranes, where the tendency is so conspicuous to the adhesive process, and where, if we do not pull down with sufficient energy, we have, even after the inflammatory state shall have subsided, inconvenient and impeding adhesions: we have also further to recollect, that even fainting itself occasionally promotes absorption; and inasmuch as it does so, upon the principles already laid down, it is an anti-inflammatory circumstance. I understand that the disciples of Dr. Hannermann never bled—that with them the lancet is a vain thing—"a minute instrument of mighty mischief"—and I am not exactly prepared to say there may not be in the storehouses of nature medicines of sufficient potency to act upon the nervous and vascular organization so as to supersede the necessity of detraction of blood. Dr. M'Lean, indeed, a powerful but too partially theoretical author, had long since proposed the doing away entirely with blood-letting, and employing calomel and opium in its stead; and, I recollect, the very first essay I ever wrote on medicine, at least which appeared before the public, was principally in reply to the following proposition—"Bleeding is *never necessary*, seldom safe, always hurtful, and often fatal."

Of calomel and opium, after blood-letting, I entertain, myself, a very high opinion, and I have a theory on its *modus agendi*, which, whether right or wrong, the practice which is deduced from it, I have not the smallest doubt, is well-founded.

My notion is, that while calomel breaks down the crasis of the blood, in the manner beautifully exemplified by Dr. Farre, and so depriving it of its sthenic, fibrous, or inflammatory character, opium constringes the capillary vessels, and thus gives them the power of refusing the admission of the blood rushing into them from the larger vessels; and all that we witness of opium's agency seems in accordance with this principle. Who does not know that it is almost a specific quality in this drug to produce a dry skin and febrile condition, unless so armed against by the admixture of other powers as that this result may be obviated? But on these principles and circumstances I shall animadvert elsewhere; suffice it now to say, that nothing, in my judgment, is better adapted to meet the demands of membranous inflammation, than a grain of calomel and half a grain of opium, when the system shall have been prepared for it by bleeding and purging. Against purging, too, I am told, the homœopathists hold up their theoretic commands; so did the Brunonians of about half a century since: but some how or other we retain the practice, in defiance of the prohibiting principles. And why do we so? Because nature speaks aloud when system cannot be heard.

I am now, I repeat, merely expressing myself in a general way, as preliminary to more minute details, and shall content myself with saying, that as the objects of purging are in some measure that of diverting action from the part affected—obviating the irritation which local accumulation produces in the bowels, and cooling the body generally, the articles must be selected according as they more particularly act on this or that part of the intestinal canal, as they possess more or less of a drastic or of a cooling quality, and as they more or less contribute to more solid or more watery evacuations.

Then sudorifics, as they are termed, or those medicines which promote cuticular exhalation, are often highly useful. There are, indeed, some practitioners who trust to these, to the total exclusion of blood-letting or other remedies, in some of the most active

inflammatory disorders. A sixth part of a grain of tartrate of antimony will often, repeated four or five times in the course of the twenty-four hours, effect wonders, in bringing down the inflammatory diathesis and quelling the topical disturbance: this effect antimony accomplishes in a way that will come better before us for explanation when I shall be treating on the *modus agendi* of medicine and of the febrifuge agency of drugs.

Sedatives, if there be such a thing as a direct sedative, are in great use as anti-inflammatory agents. But some of these possess a decided influence on the absorbent system, such as foxglove, and I am inclined to infer a good deal of their influence from this quality. "With foxglove," says Dr. Currie, who wrote beautifully on fevers, "I have often succeeded in inflammation of the brain, of the heart, and of the lungs, where otherwise I should have despaired."

I am more disposed to value this drug in circumstances of what are called chronic inflammations, and where the lymphatic system is more especially implicated; in cases, too, where there is irritation without inflammation, as in some instances of mental disorder, it is conspicuously beneficial, as will hereafter be shown.

Vicarious action is spoken of in inflammation, and probably, like a good deal beside of medical terminology, is employed vaguely; still, upon the principle which John Hunter so much dwelt on, viz. that of the incompatibility of two disordered actions at one time, there may be some rectitude in the notion of exciting by blisters and external irritants a species of new disorder, in order to lessen the original one;—this is somewhat allied to, and yet it is different from, the revulsion of the French authors—such as apply leeches to the feet in head affections—and which, although instituted and followed up with some measure of rectitude, is rather too mechanical, if I may so say, in principle. Art, moreover, is never so successful as nature in these derivatory processes; for a small hæmorrhoidal flow will often relieve head and other affections, which have laughed to scorn layers after layers of leeches, either upon the extremities or near the anus: one writer, indeed, Dr. Reid, has said there is no such thing as local blood-letting; but in this there is an obvious error, and no one who attends to the laws of the circulation would, one should think, fail to recognize it immediately. My friend the late Dr. Reid was, indeed, better at a pointed period than at physiological precision; and when he made the above assertion, he must have forgotten, that if more blood can flow through a given part at one time than another, *at* or near such part it is desirable to abstract blood.

In respect to local application for inflammatory disorders, I have not much to say, since this part of practice comes principally under the province of the surgeon. I may, however, just intimate, that when we apply lead preparations to an inflamed surface, we not only do good by diminishing heat, but by constringing the small vessels. It is beautiful to see—beautiful perhaps to me more especially, because it seems to prove and illustrate the doctrine of debilitated capillaries—it is, I say, curious and pleasing to see how the small vessels push back, as it were, the blood they had received, when assisted by saturnine lotions. You may trace this in the subsidence of the inflammation, or the contraction of its margin as you lay on your wetted cloths; and from analogy I should imagine, when we administer lead in some internal hæmorrhages, which are, as I am immediataly to show, modified inflammations, could we look into the interior membranes, we should find, as we obtained relief, that the same process of capillary contraction was proceeding.

I need scarcely add, that when suppuration is almost certain to take place, we must change our repellent and cooling for warm and bland applications; we must poultice freely, and now give internally a diet more generous, and medicine more stimulant. The principal thing, however, in suppuration is to preserve the first passages free from obstruction; if that be well done, much medicine in the general way is not needed; and it is only in the last and gangrenous termination that we must employ our bark or quinine, our opium and wine, with a liberal hand. By these we cannot reorganize, but we may so rouse and support the energies of the frame, that *it* will sometimes throw off the mortified parts, and restore the former organization. Opium and bark must not in these cases be trusted to, in homœopathic doses. At any rate, my present medical creed would condemn the practice; but in medicine, at any rate, I do not hold it good "to determine upon living and dying in the same faith in which I was bred and born."

Before quitting the subject of inflammation for the present, it may be stated that the term chronic inflammation is often used, both by pathologist and practitioner, with some want of precision.

When on the head of the maladies generally, which are caused by, or connected with the secerning and absorbing functions, it will be for me to animadvert briefly on some gradual changes of structure, which have rather reference to those functions than merely to the blood-vessels; and to some of these morbid incidents the notion of chronic inflammation is improperly attached. Indeed chronic inflammation is often in other cases misconceived, for, did it exist in the manner and for the length of time that the expressions of some systematics imply, all the parts which should be the subjects of

it would necessarily become new structures, seeing, as I think we have sufficiently seen, that no inflammation can exist on any tissue, or in any locality, without the speedy evolution of new vessels, in all their organizing or disorganizing fulness.

In the course of these addresses, gentlemen, I wish not to let slip any opportunity of impressing on your minds the necessity of guarding those minds from receiving and employing loose (which is, therefore, often false) phraseology; and which, in its application, conducts to fallacious reasoning, and even to mischievous practice. Use terms as simple as you please, but let them be framed so as to be precise and definite in their signification.

Of Hæmorrhage.—This disorder, like inflammation, implies either absolute or relative weakness. That is, the inordinate impulse given to the blood occasions the vessels to give way, or causes rupture, so as that they pour out blood; in which case, we have what in the schools is called active hæmorrhage; or, from some particular condition of the vessels themselves, they become incapable of resisting ordinary impetus, and yielding, occasion that sort of hæmorrhage which is named passive.

I have made use of the terms yielding and rupture, not as synonymous, but to express different conditions. There are, as it seems to me, three modes in which blood is extravasated. In the first place, we have decided rupture, or division or tearing of the containing vessels themselves; as, when the disorder is occasioned by external accident or violence, such as bruises, and cuts, and other modes of wounding. Then we have the hæmorrhage which is the nearest allied to inflammation, and either directly or indirectly brought about by forcing the capillaries which open on surfaces to pour out coloured blood in place of serum or their wonted secretions; then we have too great an extravasation into those cells and sinuses which naturally receive blood, but which is now received too abundantly to be reconveyed into the circulation. This last hæmorrhagic *mode* is, however, more obscure in its pathology, and less certain in its occurrence, than the two former.

Hæmorrhages acknowledge the same general causes as inflammation; but besides these, they have sources of their own; partial plethora, for instance, disposes much to their production; and hence we find bleeding from the nose frequent with very young persons, in whom the direction or determination of blood, as it is called, to the head s so common. At the time of puberty pulmonary hæmorrhage is frequent; and n more advanced life, hæmorrhoidal disorder—all on the same principle.

Sudden changes of temperature also give rise often to hæmorrhage, and that in ways about which there are differences of opinion, as I shall have occasion to mention to you when I shall be dwelling on consumptive and other pulmonary disorders. Suffice it here to say, that the notion of circulating blood being influenced as an expansive fluid by the expanding power of heat, is too readily received by some, and probably too roundly objected to by others. "When," says Townsend, in his instructive book, entitled Elements of Therapeutics, "Hoffman introduces orgasm, ebullition, and turgescence of the blood, arising from increased intestine, and expansive motion of its sulphureous æro-ætherial particles, as diminishing and destroying the systaltic and elastic power of the vessels, and thereby inducing congestion, distension, and rupture, I must profess I have no distinct idea of his meaning"—nor has any one else; and yet I am disposed to think that heat and cold do occasionally act on the blood with some expanding and condensing force; but of this more hereafter.

Passions of the mind more dispose to hæmorrhage than they do to inflammation. Electric changes of the atmosphere—density and rarity—independently of mere varieties in temperament, are in a subsequent part of the course to be pointed out as probable causes of arterial and venous flux; as may also barometrical weight or levity; positions of the body, particular kinds of exercise, and other exciting sources, must also be further adverted to, as well as the predisposing causes of structure, form of the body, &c. On these respective sources and circumstances, I forbear in my preliminary discourses to amplify. Neither in regard to the treatment does the time or the occasion permit much detail.

Suffice it to say, in the first place, that hæmorrhage is, in some measure and in some cases, its own remedy, as it were, and the practitioner must much oftener than in mere inflammation stay his hand from direct or decided interference. The malady is its own remedy in two ways—first, inflammation or congestion; and these, when in the brain, often bringing the patient to the borders of the grave, is obviated or protracted by epistaxis or nasal hæmorrhage; and secondly, outlets from even distant but connected parts, prove preventive of menacing affection in organs that are only in intermediate connection with the locality in which the flux occurs. We have an example of this latter in those vicarious discharges from the rectum, which must not be too precipitately stopped, inasmuch as their continuance for some time not seldom proves preventives of serious affections of the liver.

Blood-letting is often employed in large and active hæmorrhage; and the principle upon which it does good appears twofold—it diverts the current of blood from the effusing vessels, and diminishes the impetus

that had occasioned the disorder. Perhaps, as in the instance of inflammation, we have calculated upon the first effect too largely; but no one who has seen much of the practice of medicine will be unprepared to admit, that at least in effect the principle of derivation applies. In passive hæmorrhage, where the powers are already enfeebled, we are, of course, more chary in our venesection; but even here it is often necessary, by leeches or cupping-glasses, to determine the blood into new channels.

Purging is very often indeed called for in internal hæmorrhage, upon the ground, and after the manner afterwards to be delineated.

Astringents, when there is no local or constitutional reason why they should be withholden, are still more freely admissible than in inflammation itself. Lead from the mineral, and catechu from the vegetable world, are two of our most potent styptics. Alum, also, is often of abundant service. But these medicinals will be spoken of more at length when I shall be treating, in the first instance, of the *modus agendi* of medicine (a question soon to be agitated), and, afterwards, when the individual maladies fall to be noticed. But there is a kind of stimulating astringency, in contradistinction to the mere styptic, which is exceedingly applicable to some cases of long standing disorder. Indeed, we now not unfrequently employ agents of an exciting kind, both in inflammatory and hæmorrhagic disorder, when the complaint is more recent and active than the term chronic implies. The ergot of rye in uterine hæmorrhage, turpentine in intestinal bleeding, and the cubebs in the inflammatory stages of gonorrhœa, furnish examples, among others, of anti-inflammatory and anti-hæmorrhagic excitants.

These agents seem to meet the states to which they are applied in a sort of *vi-et-armis* manner—they overcome one action by forcing the parts implicated into another.

Before I quit these slender intimations respecting inflammation and hæmorrhage, it may be right to say, that much less of immediate danger attends the latter than would *à priori* be feared. It is always alarming to bystanders, and to the patients themselves, to witness large gushes of blood, or to see, day after day, sanguineous discharges from organs, but it is rare to find life immediately succumb under the largest and most continuous flux—the danger is generally rather remote than immediate; as, from pulmonary hæmorrhage, there is often left an organic lesion, which is to tell to bad account afterwards; but it is very seldom indeed that the flow of blood itself either exhausts or suffocates the vital principle: when death *does* directly attend upon hæmoptysis, as we call it, rather from extinction than from exhaustion, the patient dies.

Dr. Heberden tells us that, during the whole of his practice, he never saw more than one case of immediate death from hæmorrhage. He also states that he met with an instance of a man losing daily a pound of blood from his lungs during a month, without fatal consequences. In the Acta Erudita of Leipsic, to which Dr. Mason Good refers, there is a case narrated, in which seventy-five pounds of blood were lost within ten days—probably three times as much, or nearly so, as the patient's body retained at any one period. And the quantity which is discharged by even one gush from some intestinal hæmorrhages, is often sufficient to cause alarm, even to the boldest and most experienced practitioner.

It may be expected that I mention the subject of transfusion in cases of exhaustion from copious discharges of blood; but of this practice I must candidly avow (that with all my respect for the genius and talent of the individual who has, in modern times, been its principal supporter—I mean my friend Dr. Blundell), I have no opinion. It is not blood we want in these cases of asphyxia from flux; it is the power of making blood that requires to be restored; and I cannot understand how this power is to be imparted by injecting a few ounces of blood into the veins. And, further, it is not merely on negative grounds, so to speak, that I object to the practice, for positive injury is not seldom the result of its adoption, and the patient, if restored, has to encounter the irritation of phlebitis, or inflammation of the vein, while the injection, which gave rise to this inflammation, had, in my estimation, very little or nothing to do with the restoration itself.

I would not, however, wish it to be thought that my opinion is so decided and unqualified in this particular as it is in relation to many other pathological and practical principles. Indeed, the doctrine and practice being defended and adopted by such a man as Dr. Blundell, is a circumstance favourable to at least further inquiry.

One thing appears certain, and a curious fact it is, that while the chemist fails of explaining why it should be so, so it is, "that the blood of one species of animals differs so much from that of another, either in its principles or modification, that no benefit can result from transfusion, unless from like kinds to like kinds." Thus, Dr. Blundell tells us, that a dog asphyxiated by hæmorrhage may easily be recovered by the blood from another dog, but is little or not at all relieved, if the blood be taken from a man.

Respecting the *profluvia*, or discharges that are not sanguineous, I have next to nothing to advance at the present opportunity. They more naturally connect themselves with other maladies of the secerning and absorbing system. Dr. Cullen, indeed, only speaks of two disorders under

this head, viz., catarrh, which is an increased secretion and altered condition of the mucus from the fauces and bronchiæ, and dysentery, which is a malady principally implicating the mucous membrane which lines the large intestines—diseases afterwards to be particularized.

I will conclude the present lecture by reading to you a short extract from a little work I published some time since with Longman, entitled Compendium of Theoretical and Practical Medicine, or rather from the London Encyclopædia, into which I copied, with some modifications, a great portion of my own little treatise.

"There are circumstances," I remark, "connected with morbid activity of the secernent vessels, as those which secrete from the mucous membrane of the nose, that are exceptions in seeming, to the more general one of increased secretion being equivalent to increased excitation. A given quantum of excitation may, instead of augmenting, arrest secretion; so that dryness of the nostril is the result. Shall we say here that both the exhalents and absorbents are in a state of increased action, and the absorbents have obtained the mastery in the contest? or shall we suppose, with Dr. Parr, a sort of opposition between the small vessels and their sphincter extremities? or, shall we confess at once that we have much of difficulty to grapple with, when we trace functional relation to exterior agents? Again, the flux shall continue by habit, after all extraordinary excitation is over. By habit! What do we mean by this term? Merely a statement of fact; and it is really not very easy to say why a thick, ropy secretion should be continued to be poured out from the mucous surfaces after the cessation of that cause from which the flux had primarily proceeded. The absorbents here would seem to do something more for the poured out matter than merely drink up its watery and saline parts, for the secretion often gradually changes in kind as well as in consistence, and hence, under a particular condition of the part, and of the frame (to be subsequently notified), slides into a purulent condition."

You will perceive, gentlemen, that changes in the blood-vessels, and their connecting organs, rather than of the blood itself, have been the subjects, hitherto, of remark; and, in fact, the actual changes of the fluid, while in its appropriate vessels, have not, as I have already intimated, been hitherto so precisely recognized as to enable us to say much of them, either as to circumstance or remedy, without primary reference to vascular power. It is through the nerves, and through the vascular system, that our pathological knowledge of the blood's changes is mainly acquired. We cannot predicate of these changes, that they consist of a superabundance or a diminished quantity of this or that principle, and thus go to work at readjustment, as does the chemist with *his* solids and fluids—as does the mechanist with *his* materials and tools. We cannot, to illustrate, finding that the bones are deficient in their phosphate of lime, introduce this phosphate of lime into the blood, for it to be secreted and deposited by the terminal vessels. It is only by infusing action and power that we are able to accomplish anything of the kind; and therefore it is, that my remarks have aimed at leading you to an acquaintance with the habits and susceptibilities of those vessels, the regulation and control, and excitation and depression of which, constitute so large a portion of practical medicine.

At our next meeting I am to inquire further into the general disorders of the lymphatics and absorbents.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XIII.

Of the Internal Organs of Generation.

The *internal organs of generation* in the human female are the *vagina*, *uterus*, *uterine tubes*, *ovaries*, and *ligaments;* which are most concerned in reproduction, and are entitled to minute description.

The *uterus*, matrix, or womb, is a hollow muscle, destined to contain nourish, and expel the fœtus, and serving habitually for the secretion of menstruation, and the development of the offspring. It is situated in the cavity of the pelvis, behind the bladder, before the rectum, under the small intestines, and above the vagina. It is of a flattened pyriform or conoid shape, thickened before and behind, its base turned upwards, and its orifice downwards. It is divided into three parts—the *fundus* or bottom, the *corpus* or body, and the *cervix* or neck. Its anterior surface adheres inferiorly to the bladder; its posterior surface is convex, covered by peritoneum, and rests upon the rectum; its lateral surfaces are concave towards their middle, covered by the *broad ligaments*, giving origin superiorly to the *ligament of the ovary*, the uterine tubes, and round ligament, and receiving inferiorly the vessels and nerves called uterine, and superiorly the spermatic arteries. It opens into the vagina by a transverse orifice called *os uteri*, or *tincæ*, or *utero-vaginal orifice*, formed by two lips, an anterior, which is thicker and shorter than the posterior, and appears thinner and longer, on account of the obliquity of the vagina and uterus. Its orifice may be thickened, enlarged, irregular, or tuberculated, in those who have had offspring. It is very small in virgins—from three to eight lines; it is capable of admitting a probe or a small goose-quill in general, and in some only a bristle. Nevertheless, it is capable of dilatation sufficient to allow the body of an infant to pass through it—a fact, says Galen, which we know but do not understand. The interior of this organ offers a *cavity* of a triangular form, having two surfaces, which are almost in contact in the virgin, but separate and concave in those who have had children. It has three angles—two superior or lateral, terminating in the orifices of the uterine or Fallopian tubes; the other inferior, forming the internal or cervico-utero vaginal orifice or cavity of the neck of the uterus, opening into the vagina. The whole uterine cavity is lined by mucous membrane, continuous with that of the labia, vagina, and Fallopian tubes. This lining is arranged in folds in the young subject, and forms lacunæ. There are numerous follicles near the orifice, which are designated *glandulæ* Nabothi, which often secrete abundantly under venereal excitement, and are supposed by some to be the seat of cancer. Its posterior surface offers projecting wrinkles, disposed in the form of a palm, and hence called *arbor vitæ*. The cavity of the neck is oval, about twelve or fifteen lines in length, and five or six in width. It possesses median and transverse lines, and a number of muciparous glands, and sometimes small vesicles, which were formerly deemed germs, and called ova Nabothi.

Dimensions.—The length of the virgin uterus is twenty-seven lines*; the width of the body twenty lines, and of the neck thirteen lines; the thickness of the body, nine lines; of the neck, six lines; of the parietes, four lines; of the body, four lines; and of the neck, three lines; the lips in the vagina, two or three lines; the weight seven or eight drachms. After the female is a mother, the uterus measures two and a half or three inches in length; the body, two inches; the neck, one inch and a half; the base, twenty to twenty-four lines; the neck, fifteen or sixteen lines; the body, twelve or fourteen; each wall, six lines; the os uteri, or utero-vaginal orifice, six lines; the weight about two ounces. These dimensions were ascertained by Rœderer in a great number of bodies.

Directions.—The uterus is said to be in the direction of the axis of the superior strait of the pelvis, and with the axis of the vagina forms nearly a right angle; its orifice looks downwards and backwards, and its posterior lip

* A line is the twelfth of an inch.

is lower than the anterior. The direction will vary according to the situation of the woman, the fulness of the bladder or rectum, or when it is in a state of spasm or contraction. It is generally inclined a little to the right side (*pl.* 3, *fig.* 2; *pl.* 4).

Organization, Structure.—The whole uterus is covered posteriorly with peritoneum; the body only is covered anteriorly; the neck is supported by the bladder (*pl.* 3, *fig.* 2). The uterus consists of an external and internal membrane, a peculiar dense greyish fibrous tissue, numerous vessels, nerves, lymphatics, and some cellular tissue. The external or peritoneal tunic forms two folds at the sides, called the *broad ligaments* (*pl.* 3, *fig.* 1, *s. s. pl.* 4). Their anterior and posterior layers are closely united, but allow a passage for the uterine and ovarian vessels and nerves and some muscular fibres. Their upper borders form three folds, which contain the round ligament, the tube, and the ovary (*pl.* 3., *n.*, *o.*, *p*).

Muscular Tissue of the Uterus.—Vesalius*, Malpighi, Ruysch†, Noorthwyck‡, Wrisberg§, Meckel‖, Lobstien, Hunter, Charles Bell, Velpeau, Rosenberger, Duges, and a host of modern anatomists maintain the muscularity of the uterus; while Boehmer, Blumenbach, and a few others, deny it. The course and direction of the fibres were disputed by anatomists. Vesalius, Malpighi, and others, said it was impossible to separate them, as they were so interlaced; Ruysch and others, that they formed an orbicular muscle at the fundus, to expel the placenta, which is denied by Heister, Smellie and Haller; Hunter, Sue, &c. that they were intermixed; Leroy, Meckel, and many German anatomists, that they formed an internal and external layer of muscle. Baudelocque and his countrymen declined to determine the course of the uterine fibres; though they supposed them to form fasciculi parallel to the axis of the uterus, or longitudinally, or in circles placed horizontally; that the body and fundus were principally formed by the first, and the neck by the second. This view is corroborated by recent writers. The fibres are longitudinal, and oblique externally (Rosenberger); transverse at the interior of the neck (Verheyen); and circular at the tubal orifice (Weitbretch); the exterior fibres form the round ligaments (Rosenberger).

Velpeau has dissected a great number of uteri, and arrives at the following conclusions: 1. There exists under the peritoneal tunic a thin, dense, elastic, cellulo-fibrous layer, sometimes, but not always, muscular, in which the fibres have not a fixed direction; 2. A thick layer of transverse fibres, united similar to the constrictors of the pharynx, and being most deeply transverse; but the fibres were longitudinal and oblique on the neck and internal surface of the organ. All these layers have for a base a cellulo-fibrous tissue, surcharged with fibrin; the fleshy tissue is developed in this substance as in the intestines, and the uterus appears to result from the re-union of two cylindroid canals. Mad. Boivin and M. Guerin give a similar account of the structure of the uterus. (*Specimens exhibited.*)

The internal membrane of the uterus is said to be mucous by many; but this is denied by Gordon¶, Chaussier**, Ribes††, Beclard, and Azzoguidi. The most careful dissections, putrefaction, ebullition, and chemical agents, have never demonstrated the existence of mucous membrane to these

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* De Fabrica, Corp. Human, Lib. v.
† De Muscul. in fundo uteri, 1726.
‡ Uter. Gravid. Human, 1726.
§ Comment. Phys. Med.
‖ Manual Anat.
¶ System of Anatomy, 1815.
** Trans. of Rigby, by Mad. Boivin.
†† Soc. Med. d'Emul. t. viii.

London, G. Henderson, 2, Old Bailey.

observers, unless towards the end of pregnancy, when there was, according to them, a pellicle of a new formation, and not the normal membrane. Beclard declares that the lining membrane of the uterus is not a complete mucous layer, but wants the epithelium. It is certain that the mucous membrane of the uterus cannot be separated except during pregnancy, or after parturition; but still it possesses all the characters and performs the function of mucous tissue. It supplies mucus in a healthful state, purulent mucosity in a pathological state, and sanguineous exhalation, and is the seat of polypus, &c. It is generally considered to be mucous membrane. Mucous and vesicular follicles occupy the neck and external orifice, and these were named *ova Nabothi.* The *arteries* which supply the uterus are the spermatics and hypogastrics, which penetrate the substance at the sides of the neck. The ovarian arteries are given off by the aorta or emulgents, are distributed to the broad ligaments, ovaries, and finally arrive on the sides of the body of the uterus. Those of the right and left sides, and the superior and inferior, anastomose with each other. The veins are distributed in the same manner as the arteries, enter the internal iliac and ovarian veins. These vessels form a cavernous tissue, are greatly enlarged during pregnancy, and are distributed between the fleshy layers of the uterus. They acquire the diameter of four or five lines during pregnancy, are deprived of valves, and adhere by their external surfaces to the fleshy tissue of the uterus. From this disposition we may expect absorption of matters in the uterus, and phlebitis, as proved by MM. Velpeau, Dance, and others*.

The *lymphatics* are large and numerous during pregnancy, and follow the course of the blood-vessels. They open into the pelvic and iliac glands. They may be inflamed like the veins, on account of absorbing heterogeneous and morbid matters in the uterus.

The *nerves* are supplied by the renal and hypogastric portion of the great sympathetic, are six plexuses (Tiedemann), and are divided into branches, which supply the fundus and follow the course of the uterine arteries; while the neck is supplied by the first pair of sacral nerves, which accounts for the excessive sensibility of this part. We can therefore easily account for the numerous sympathies which exist between the uterus and every part of the body, through the medium of the great sympathetic nerve.

Vital Properties, Sympathies, Uterine Action.—The sensibility of the uterus is obscure in the ordinary state, but vivid in inflammation, or in spasm, during pregnancy, or after delivery. The contractility scarcely exists in the ordinary condition of the uterus, but is developed by enlargement of the organ. Still we observe menstrual pains, false pains in extra-uterine fœtation, pains from coagula after delivery or in abortion. The uterus strongly sympathises with the internal and external genitals, with the mammæ during menstruation, pregnancy, and delivery, with the stomach, brain, heart, &c.; in fine, with the viscera of the head, chest, abdomen, with the organs of sense, and with all parts which are abundantly supplied by the cerebro-spinal system of nerves, which accounts for the innumerable new sensations and functional derangements incident to utero-gestation and uterine disorder or disease. When the uterine secretion or menstrual fluid is suppressed, we observe the whole organs of the body more or less disordered; and we also know how often this secretion will be influenced by diseases of other and remote organs.

Uterine Tubes (Tubæ Fallopianæ).—The *uterine*, or *Fallopian tubes*, are two small canals, four or five inches in length, of the size of a goose-quill, extending from the lateral angles of the uterus, with which they are connected,

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* Velpeau, Thesis, 1824. Arch. t. vi. Rev. Med. t. ii, 1826. Salles, Thesis, 1827. Dance, Arch., 1829, t. xix, xx. Lee, Observations on Diseases of Women, 1832.

to the ovary, passing through the middle fold of the broad ligament, floating loosely in the pelvic cavity, opening into the abdomen, and terminating in a fringed extremity, called *fimbriæ* or *morsus diaboli* (*plate* 4). The cavity of this seminiferous tube is large near the uterus, narrow in the middle, and again enlarged towards the fimbriated extremity. It is composed of a peritoneal tunic, of a musculo-vascular substance, similar to that of the uterus, and of a mucous membrane, folded in the longitudinal direction. The fleshy substance consists of circular and longitudinal fibres, arranged similar to those of the intestinal canal. The mucous membrane has been as easily separated as that of the œsophagus, consists of valvular folds, which admit the passage of the ovum towards the uterus, but prevent its retrograde motion towards the ovary, and consequently the passage of the seminal fluid of the male (Velpeau, Baudelocque, neveu). The cavity of the tube is often filled with whitish mucus like all other mucous surfaces, which accounts for the mistake of those who stated, that they saw the spermatic fluid in this canal. The tube receives its vessels from branches of the ovarian, and its nerves from the great sympathetic; it is erectile and contractile, and is put in motion by the uterus and ovaries. It becomes erect during coition, seizes the ovary, and permits the passage of the seminal fluid, or a vapour from it, to that organ. Haller caused its erection by injections of the uterus in the dead body. If a ligature is applied round each Fallopian tube in a rabbit, impregnation will be prevented (Haighton, Blundell, &c.), and the fecundated ovum has been arrested in the tube, an example of which was seen by Dr. Granville. If the tubes are rendered impervious by inflammation, incurable sterility will result. The tube has been observed grasping the ovary when death occurred by poisoning a few hours after coition; and when the woman was killed in the act (*plate* 4).

Ovaries (Ovaria).—The *ovaries* have long been denominated testes muliebres, and are properly the seminal glands of woman; the secreting organs of the germs, situated near the sides of the uterus, enclosed in the posterior folds of the broad ligaments attached to the uterus by proper ligaments, are oblong, oval, about the size of an almond or bean, and of a yellow grey colour (*plate* 4). They are composed, 1, of a peritoneal tunic; 2, of a fibrous membrane, thick and hard, perhaps fleshy like the uterus and ovarian ligament, of which it may be an expansion (Velpeau); 3, of a reddish tissue, dense and firm, called dartos by the ancients; 4, of miliary vesicles, ova, from the number of eight to twenty, called Graafian vesicles, filled with an albuminous fluid; 5, sometimes of a body of a yellowish grey colour, covered by a cicatrix, and called *corpus luteum.* The best description of this last body hitherto published, will be found in the Cyclopædia of Practical Medicine, by Dr. Montgomery, of Dublin. Each ovum or ovarian sac contains a germ, which bursts the peritoneal tunic of the ovary after conception. This subject will be fully considered in my account of ovology. At puberty, the ovaries become active and developed, producing by sympathy a series of changes in the uterus, its appendages, the mammæ, larynx, &c. The ovary is an organ essential to generation; it forms the germs, or perhaps secretes a fluid in different sacs, eggs, ova, which is as essential to generation as the spermatic fluid of man. The ovaries bear so close a resemblance to the testes of the male during intra-uterine existence, that it is scarcely possible to distinguish one from the other, when both are in the pelvis. These germs were said to pass through different canals to the uterus, and not through the tube, until the time of Fallopius; the ligament of the ovary was supposed to be the chief passage. Wharton and Mauriceau admitted one or two canals, which opened into the vagina; an idea lately revived by Gartner, of Copenhagen, as he found them in the large quadrupeds; but as yet they have not

been discovered in woman. We shall perceive hereafter much reason in this opinion, as it will appear in the account of Generation, that there are the strongest grounds for supposing the absorption of the seminal fluid from the vagina can only account for impregnation in many cases. Notwithstanding the small size of the ovaries, they are capable of considerable enlargement when diseased. They may vary from the size of a pigeon's egg to a magnitude sufficient to fill the whole abdomen, specimens of which may be examined in the Hunterian Museum, at the Royal College of Surgeons, in London, and numerous examples of which I shall describe hereafter.

Ligaments of the Uterus.—The *ligaments of the uterus*, are the broad and round (*plate* 4).

The *broad ligament* (ligamentum latum) is an extended fold of peritoneum reflected from the body of the uterus, and connecting it to each side of the pelvis (*plate* 3, *fig.* 1). The uterus and its two broad ligaments, one on each side, divide the pelvis into two cavities; an anterior, which contains the bladder; a posterior, in which is found the rectum. Each ligament is subdivided into two or three folds, which enclose the uterine tube, ovary, and round ligament, and have been called utero-vesical.

The *round ligament* (ligamentum rotundum) arises from the uterus before and under the tube, passes through the inguinal canal, and terminates in the groin, mons veneris, and labia. It is a round, long, muscular cord, composed of blood-vessels, lymphatics, nerves, and cellular substance, which supports the uterus in situ, and prevents it sretroversion, when pressed on by a distended bladder. It is supposed by Sir C. Bell to perform the function of tendon, and to be connected with two muscles, which he has described as situated near the fundus uteri. Professor Joerg, of Leipsic, is of opinion, that the round ligaments transmit sensation from the clitoris to the Fallopian tubes and ovaries during coition, so as to establish a sympathy or consentaneous feeling between all parts concerned in generation. The uterus, without the round ligaments, would be constantly retroverted or pushed back into the cavity of the sacrum by the bladder. Extended by the ascent of the gravid uterus, and when the woman is on her knees, the round ligaments may produce severe pains in the groins and thighs.

The *vagina*, or vulvo-uterine canal, is a cylindroid tube which extends from the genital aperture to the uterus. It is continuous with the great lips and hymen, ascends to the neck of the womb, whose circumference it embraces. It is situated near the concavity of the pelvis, in front of the rectum, and behind the bladder (*plates* 3, 4, and 10). This canal, in the virgin state, is about three or four inches in length, and about one in diameter anteriorly, and six or seven inches posteriorly. It is curved, its concavity looking upwards, and its convexity downwards; and it forms an angle of about sixty degrees with the great diameter of the uterus (*plate* 3, *fig.* 2). Its direction is inferiorly in the axis of the outlet, and superiorly in the axis of the cavity of the pelvis. Its inferior or external aperture is not always in the axis of the perineal strait or outlet, according to Smellie, Velpeau, &c.—a conclusion which I consider correct.

Its external surface is connected with surrounding organs, except at the superior half of its posterior aspect, where it is covered with peritoneum, which descends between it and the rectum, and forms a cul de sac; so that vaginal ruptures penetrate into the cavity of the peritoneum (*plate* 3, *fig.* 2).

The posterior region of its *external surface* is supported in three fifths of its extent on the anterior part of the rectum, with which it forms the recto-vaginal septum. On approaching the vulva, its inferior fifth is separated from the rectum for the whole length of the perineum. Its superior fifth is free in the pelvis, and is covered with peritoneum. Its anterior region is united at

first by means of dense and thick cellular tissue to the inferior surface of the bladder, to form the vesico-vaginal septum, and afterwards to the urethra, from which results the uretro-vaginal septum (*plate* 3. *fig.* 2).

Its *internal surface* presents transverse salliant elevations or folds, similar to those of the neck of the uterus, traversed superiorly and inferiorly by a septum or longitudinal column, situated in the middle of the anterior surface, and sometimes by three or four similar columns, arranged at equal distances from each other; and becoming much thicker as they approach the vulva (*plate* 4). The extremities of the median columns form the anterior and posterior carunculæ myrtiformes (*plate* 3, *figs.* 2—6). The rugæ or folds are prominent in virgins, or those who have rarely indulged in sexual intercourse; they are obliterated in married women after delivery, but return in some time afterwards.

The *vaginal cavity* terminates superiorly in a circular cul de sac, which is much deeper posteriorly than anteriorly (*plate* 3, *fig.* 2). It is an inch above the orifice of the womb posteriorly; before, the mucous membrane is reflected on the cervix, and the posterior and inferior lip of the uterine orifice projects more into the vagina than the anterior (*plate* 3, *fig.* 2), and *vice versâ*.

The parietes of the vagina are nearly in contact in the ordinary condition, but as they possess great extensibility, the capacity of the vulvo-vaginal canal varies considerably. It is about an inch in diameter, but may be greatly amplified by forced extension. In some subjects it is wider in the middle part than at its external or internal aperture. At other times it is dilated in the middle and superior part, in women who have had offspring. Its dilatability is such as to adapt it to the functions of generation and parturition; and its contractility very speedily reduces it to its usual state after these functions.

The vagina is composed of two structures, an *external* and an *internal*.

The *external* layer is a prolongation of the tissue of the uterus, is a yellow cellulo-fibrous structure, contains pale fleshy fibres, which are not to be confounded with the elliptic muscular sphincter of the vulvar orifice, which is called the constrictor muscle of the vagina. These act under the impulse of volition, those under the action of venereal enjoyment. The arteries and veins of the vagina are very numerous, and form inferiorly a true spongy or erectile tissue (plexus reteformis), which becomes tumefied by coition, and may considerably contract the diameter of the vagina.

The *internal surface* of the vagina is lined by mucous membrane, which is continuous with that of the uterus and Fallopian tubes. It contains an epithelium, follicles, villosities, &c. It cannot be separated near the neck of the womb, and in that situation follicles or villosities cannot be demonstrated*. The mucous follicles are situated at the bottom of the rugæ, and are often the site of chancres.

The *vessels* and *nerves* of the vagina are supplied from the hypogastrics.

There are two glands situated under the lateral carunculæ myrtiformes, and between the mucous membrane and fleshy layer. These were called *vaginal* or *prostate* glands of Bartholin. Their use is unknown. Smellie held that their orifices were placed under the meatus urinarius, and expelled a fluid during coition; and Gartner considers them the orifices of the canals which he thinks he has discovered.

The vagina possesses the power of contraction, erection, and dilatation. It permits the birth of an infant, contracts immediately after, and in a few days is reduced to its ordinary condition, or very nearly so.

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* L'Helut. Thesis, Paris, 1826.

The erectile tissue and constrictor muscle close the vaginal orifice when the slightest excitation is applied. This fact is often observed on making vaginal examinations. But the resistance of this muscle is not so great, if there is leucorrhœa or copious discharge of mucus from the vagina, which causes relaxation, and is an occasional disease in virgins, and much more so in married women. This may depend upon constitutional debility and diseases, as well as local causes. In this case there will be a slight degree of resistance only; while in the former it may be so great as to prevent the consummation of marriage, or this can only be effected with more or less laceration and loss of blood. Thus, there is some justice in considering a woman a virgin who colours the nuptial couch; but it is evident that she may be equally so when relaxed, for the reasons already mentioned. The use of mild astringent injections arrests the mucous secretion and strengthens the vagina. Abstinence from venery, for weeks or months, produces the same beneficial results. Amplitude of the vagina is capable of inspiring disgust; and may be removed by the methods just described. Buffon has remarked that women who had been married young, presented all the signs of virginity at an advanced age, having scrupulously observed a rigid continence for several years; and there is no doubt of the fact.

Four other ligaments are said to exist: two anterior, utero-vesical; two posterior, utero-sacral; but these are rarely observable.

A LECTURE
ON
PHYSICAL EDUCATION,
BY M. L. FRECHET.

Lately delivered at the Philosophical Institution of Bath and Bristol.

It cannot be denied that physical education has been greatly neglected, or rather almost entirely lost sight of. This has arisen from the almost exclusive attention given by parents to the moral and mental culture of their children. The first thought of those in easy circumstances, is to give their children a polished education, in order that they may exhibit in private or in public the refinement of manners becoming their rank in society. This is certainly what genteel society has a right to expect. But what must be the disappointment and regret of parents to find, after they have imparted to their children all those accomplishments, that they have overlooked an essential portion of education? I mean the physical. What can avail an edifice which stands on a bad foundation? If it falls, all is lost! It only remains for those parents to deplore their loss, and to perceive, when it is too late, the fault they have committed through ignorance in the discharge of their duties, towards the objects of their dearest affections. Many of my hearers, I make no doubt, have seen young men carried off in the prime of life, who had spent their early years in diligent studies, to adorn their minds and make themselves useful members of society, or more frequently to shine in brilliant circles. Within the last few months spent in pursuit of my studies in Dublin, a most deplorable fact, in support of this position, came to my knowledge. A gentleman, of the name of Meade, a Fellow of Trinity College, in that city, who, by unremitting exertions in his studies, aided by extraordinary natural talents, had lately obtained very high honours, which led to the procuring the object of his ambition, a handsome living in the church, to which he would undoubtedly have been a great ornament, was cut off in the prime of life, in consequence of a total neglect of the exercise which his frame required, in order to bear the extraordinary excitement of his mind.

The celebrated Johnson, of London, says "I cannot too strongly impress on the minds of parents the necessity of gymnastic exercises. Those, who from false or fashionable ideas, neglect to give their children the physical advantages which result from the education of the corporeal powers, are answerable for more than half the bodily ills which befal their offspring in after life, and if they recollect that the energies of the mind are mainly dependent on the health of the body, they may probably perceive the moral as well as the physical advantages of gymnastics."

I might have extended my remarks to infants, but by doing so, I should probably have incurred the censure of mothers, for meddling with that which is specially their concern. I shall, therefore, content myself with speaking of the treatment proper for individuals placed under the care of guar-

dians and tutors. Between the ages of seven and sixteen, or thereabouts, boys and girls are apt to grow very rapidly, and it is particularly at that period that great vigilance is required. A young man, who has a propensity to grow fast, ought not to be kept confined for any long period of time; he will require double the quantity of exercise which would be sufficient for another; his pale face and delicate complexion are indices of his weakness; pure air is to him indispensable, exercise will give strength to the muscles, and pure air rectify and nourish the blood. for when the body is in activity the quantity of the blood becomes increased; thus the quantity and quality of the blood will keep the young man in perfect health, because it has the most direct and material influence on the state of every part of the body, and he will be guarded against diseases, such as debility, deformity, and curvature of the spine, &c., of which I shall hereafter speak.

Before I treat of exercises, and how they ought to be applied, I shall advert to the mode of dress. A young lad, of a strong constitution, will require a much lighter dress than a delicate one, and for this reason: the circulation of the blood in the former being very quick, owing to his fondness for exercise and amusement, the natural heat will constantly be kept up, and the sensation of cold will be seldom experienced; while the latter will always be shivering, and will consequently require warmer clothing to supply the want of natural warmth. I would not, however, kill him with tenderness, as many do, by burying him with warm clothing; he should have just enough to guard him against the severity of the atmosphere, and I would recommend exercise in order to promote the natural warmth, a practice far preferable to that of keeping him in over-heated apartments, from which no good can result, nor would I accustom young people to sleep in too warm beds, especially feather beds, for the health has often been impaired by perspiration at night when not required; and moreover, a feather bed is too apt to absorb the moisture of the atmosphere. The guarantee I have for the correctness of this remark is my own experience in my education, and the observations I have had an opportunity of making in several establishments for instruction.

I was early sent to the colleges of Evian and St. Maurice, on the borders of the lake of Geneva. Most people are aware that the winter is there generally very severe; during that season there was but one fire in a hall capable of containing about 300 pupils, the bedrooms were never warmed, we were consequently compelled to have recourse to exercise, in order to resist the cold; for we were not even allowed to go near any place where we might procure a handful of fire, if I may be permitted to use so homely a term. The consequence was that we gradually accustomed ourselves to the privation, and never felt cold, for the warmth resulting from exercise (as I have already observed), is far preferable and more salutary than the heat of a fire, which makes us more liable to catch cold as soon as we go from it. Our beds were simply straw mattresses, perhaps not so comfortable, but much more wholesome. I may further remark, that during a period of ten years spent in these colleges, I recollect but one instance of a medical man being called in to attend on any of the pupils.

The dress of a lad who is growing ought to be as wide or loose as never to keep the trunk of the body compressed; should it be tight, his health will soon be impaired by it, for the circulation of the blood, which ought to be as free as possible, is thereby impeded; and moreover he is unable to take exercise with the requisite degree of freedom. It is the greatest absurdity for young men, as well as those more advanced in age, to imagine that by wearing belts they benefit the parts to which they are applied; the result is directly the opposite, for the effect of belts is evidently to prevent the free exercise of the muscles of the trunk, spine, and abdomen, the functions of which are among the most important in the human frame. They want to improve the work of nature by shewing a small waist, whereas, if they really knew the beauty of it, they would leave it alone, and have recourse to the natural means we have for strengthening these parts by exercises, calculated to improve the health as well as the form. I have been asked by gentlemen who wear belts if I approve of them? I have asked them in my turn for what purpose they used them? The answer was, "Don't you see I am getting so lusty?" Now when this is the case, it would be a great deal better for gentlemen so disposed to work a little harder, or to use more exercise, and not to indulge too much in the good things of this world, in order to prevent that *embonpoint* which might in future be a troublesome companion to them. I might now speak of stays or corsets; but as I have not yet alluded to young ladies, I shall advert to them when I have the pleasure of addressing the latter.

Before I proceed further, I must not allow the subject of diet to pass without notice. I am aware that this is a delicate one, yet I trust its importance will excuse the freedom of my remarks upon it. In the first place, children ought to be supplied with plenty of wholesome food in order to favour their growth, which is the chief function of that age, taking care at the same time not to let them exceed a reasonable quantity; for when they meet with an unusually palatable dish, not thinking of

the dimensions of the stomach, they are apt to overload it, and consequently to go beyond its power, thereby running the risk of injuring themselves. I would supply them with food as often as they may desire; for hunger at their age (that is, between 7 and 16), is more acute and frequent than at a later period of life.

As to drink, nothing but weak liquids will be required; stimulus is naturally strong in them, so that it would be injurious to give them any thing capable of producing it; wine in this country contains too much alcohol to be given in safety without being diluted; all spirituous liquors should be interdicted. Experience proves that plain food is generally the best; the strong and healthy rustic seldom knows or cares for any other, as owing to his constant bodily exertions he never loses his relish for it. Besides, how much to be preferred is the situation of that man, who, by the exercise of his physical or mental powers, is never precluded (owing to the paucity of his wants) from satisfying them, to that of the pampered epicure, who, if fortune should cease to smile, sees himself perhaps totally bereft of that which he had unfortunately accustomed himself to look upon as a necessary portion, if not the end and object of his existence? The wisdom and justice of the Creator assuredly are not less strongly exemplified in the one case than in the other.

I shall now venture upon a few remarks relative to the physical education of young ladies, in the hope of directing the attention of those to whom the charge of them is confided, to a consideration of the advantages to be derived from a judicious course of treatment, both in the prevention and cure of those diseases to which, from their natural delicacy of constitution, and a variety of other causes, they are more particularly exposed.

It is almost incredible how great is the number of deformed young ladies, yet I confidently assert that it chiefly arises from the neglect of parents or guardians in confining them too long within doors in constrained and unnatural postures. Out of 20 cases of deformity, 19 result from want of proper exercise. It is the greatest absurdity to debar young ladies the enjoyment of the same exercises as young men. I cannot see any reason for so doing; some say that decency would not permit it, others that their frame is too delicate; nothing but ignorance can make them come to such a conclusion. We have all been created for the same end or purpose; so that what is desirable for the one, is likewise so for the other.

Deformity is comparatively a rare occurrence in boys, you seldom meet with a crooked lad; but, alas! how much more frequent is it in young ladies. They are kept for two or three hours sitting upon a form, or at a piano forte, where they soon get tired; then this leads them to support their heads with their right or left arm, all the muscles of the spine and trunk become relaxed, and after they feel pain, you will see them rise and stretch as if they had been over-exerting themselves, and you will often hear them complain of pain in their backs.

I have long since made these observations, as they are part of my profession, and do not fear contradiction. In support of my observations, I will adduce a passage from the Principles of Physiology, applied to the preservation of health by Doctor Andrew Combe, Fellow of the Royal College of Physicians, Edinburgh.

A single instance, from a note appended by Dr. Forbes, to an excellent treatise on Physical Education, by Dr. Barlow, of Bath, will suffice. After copying the programme of a boarding school for young ladies, which exhibits only one hour's exercise, consisting of a walk arm in arm on the high road, and that only when the weather is fine, at the particular hour allotted to it, in contrast with nine hours at school or tasks, and three and a half at optional studies or work, Dr. Forbes adds, "that the practical results of such an astounding regimen are by no means overdrawn in the preceding pages, is sufficiently evinced by the following fact, a fact which, we will venture to say, may be verified by the inspection of thousands of boarding schools in this country. We lately visited in a large town, a boarding school containing forty girls; and we learnt, on close and accurate inquiry, that there was not one of the girls who had been at the school two years, and the majority had been as long, who was not more or less crooked! Our patient was in this predicament, and we could perceive (what all may perceive who meet that most melancholy of all processions—a boarding school of young ladies in their walk), that all her companions were pallid, sallow, and listless. We can assert on the same authority of personal observation, and on an extensive scale, that scarcely a single girl, more especially of the middle classes, that has been at a boarding school for two or three years, returns home with unimpaired health, and for the truth of the assertion we may appeal to every candid father, whose daughter has been placed in this situation."

Dr. Barlow justly remarks that the superintendents of such schools cannot generally be blamed for indifference about the welfare of their pupils; that most of them are extremely anxious to do their utmost to improve those under their charge. To the last remark of Dr. Barlow, I beg to add my own testimony; many superintendents of schools know the importance of physical education, but are often prevented by the

parents from giving it the attention it demands. In many instances I have been told by school masters and mistresses, that they cannot instruct their pupils without the constant interference of the parents. They are consequently obliged to consult them before they can take any steps calculated to benefit those under their care.

I do not, however, wish to be understood to make a general charge; for I know instances of the contrary. I have seen seminaries of young ladies where the discipline was admirable, but then the superintendents were absolute, they knew their duty, and did not listen to the over anxious solicitations of mothers, not, however, disregarding those suggestions which might further their improvement, for it is quite clear that those who undertake education ought to be so far capable of it, as not to be subject to the mortification of constant interference on the part of the parents.

Young ladies may care very little about the curvature of the spine as long as they are ignorant of its consequences; it is only when they reach a certain age, and grow desirous of mixing in society, that they become aware of their unhappy situation. They are not a little disappointed, consequently their minds soon become melancholy, which adds considerably to the deterioration of their health; and if you look on their mournful countenances, their pale faces, and perhaps their timidity, you will perceive, what must be in silence the sorrow of their friends, and feel a thousand pities to see persons so amiable, and minds so cultivated, in such circumstances. They seldom venture to move from one corner of the room to another, lest they should be observed, and it is in vain they would endeavour to conceal the deformity by artificial means; for the disease is so common that there are few persons who will not be capable of detecting it in the deportment when walking.

This will not be the only evil arising from it; there may be great danger awaiting those persons in changing their state of life, and that for reasons which I do not feel myself warranted to give to my present audience, but of which it would nevertheless be of great utility that those concerned should be acquainted with, otherwise their ignorance might expose them to the risk of losing their lives!

As I have before alluded to both sexes, I shall now advert to the mode of treatment in the first curvature of the spine. The most gentle exercises are required to stop its progress, and they ought particularly to be applied to the weakest parts. After having done so, we must carefully watch the progress of our patient, and if warranted to go on, we should direct the exercises immediately to the muscles affected.

It will be of the greatest importance to know well the anatomy of the parts, and the functions of the muscles, so that every one who undertakes physical education ought to be properly acquainted with the mechanism of our apparatus of locomotion, in order that he may apply exercises according to the function of the different muscles. On the continent, and especially in France, the Orthopidus and Gymnasia, with few exceptions, are superintended by medical men, and I hope that before long they will be so likewise in this country. Parents ought to be very cautious not to entrust their children to persons ignorant of these general principles, but a professional man will soon discover how the child ought to be dealt with. I have often been told that sergeants' drilling was an excellent mode of exercising. I think so too, as far as it is suitably applied; but it must be remembered that the subjects which are under his care are men that have neither deformity nor disease, for they are inspected by the surgeon before he allows them to be drilled, so that it will be very easy to teach walking, but drilling would have very little effect upon deformity or diseases.

It would be very difficult to convey to you an idea of the different exercises; they are best understood by seeing them. The famous Dupuytren invented, for the cure of deformity of the spine, a machine corresponding to the parallel bars of our gymnasia; these bars are the best, inasmuch as we can vary the exercises as required, and when judiciously applied, they will have the desired effect if resorted to in time. In support of my observations, I shall quote an extract from the London Medical and Surgical Journal, of a lecture by Professor Samuel Cooper, delivered at the university of London.

"There is a deformity of the spine arising in young persons who are growing with too great rapidity, especially in females, which does not depend on any disorder of the bones analogous to rickets, but on the circumstance of such individuals not exercising their muscles on their being prevented from taking the free and unconstrained position and exercises most agreeable to nature. Under such disadvantages the spine becomes deformed, without any imperfection in the texture or development of the bones, and consequently there is no ricketty disease of them. When curvature of the spine which has arisen from such cause, is not considerable, and the growth of the individual is not yet completed, the deformity may be removed by letting all the muscles of the trunk be daily exercised in a free, regular, and uniform manner, so as not to suffer one set to be put more into action than another. It is on these principles that gymnastic fêtes and manœuvres become exceedingly useful in the treatment of defo-

mities of the spine, which are so common in girls during their growth."

I shall now advert to the *compound curvature*, if I may be allowed the expression, which is of a more serious nature than the first, the origin of which is attributed to different causes; you will meet with many cases in very young persons. If you inquire of the parents respecting the child, the answer will be generally that he has been, or he is, in very delicate health, and has been confined for a long period of time. In that case there is no doubt it is the consequence of disease, but you will often detect a curvature when the person has not suffered any serious illness; the parents do not take the proper caution at that stage, hoping it will get better with the growth of the child—the malady extends insensibly till it arrives at a certain period, when it takes a serious turn, and from a single curvature passes to a double one; whereas had they had recourse to the proper means in time, they would have prevented the evil; but the most dangerous cases I have met with are always in persons predisposed to *scrofula*, which will account for their weakness and debility. You are aware that when the spinal column is out of its proper position, several vessels will be deprived of their functions, the parts affected will lose their energy, and debility will soon follow.

No deviation of the dorsal region of the spine could take place without affecting the situation of the ribs, of the sternum, or chest; a pressure upon the sternum itself might even be the primary cause of a deformity of the spine, so a compound curvature is also accompanied by a deformity of the chest; in this case we have a double cause for the deterioration of the health; the one will act upon the muscles, vessels, and nerves; the other upon the organs of respiration; hence the one will produce weakness and debility, the other diseases of the lungs.

The consequences of such deviation from nature, it is evident, must be injurious. I will not enter here into their details, but I would warn parents who have children in that situation to take early steps to prevent any further mischief. The successful treatment of such curvature must in a great measure depend upon the method employed. I will endeavour to explain to you my method.

In many cases the curvature is attended with debility, the patient may be weaker in some parts than in others; it will therefore be of the greatest importance to be aware of all. I am soon able to discover the parts which will require my first attention, by ordering him to go through certain exercises, by which I can find out where the deficiency of strength lies. After I am master of the condition of my pupil, I make him do the preliminary exercises, which are very gentle; thus I prepare the muscles for development without distressing him too much: tepid shower baths will be very serviceable, of which you may change the temperature according to his improvement. I generally find that at the end of five or six weeks he has so increased in strength and health, that I am warranted to increase gradually the exercises. I generally direct the first exercises on the muscles of the arms and shoulders, because the other parts of the body depend greatly upon their strength and capabilities for exercise. I pass afterwards to the muscles of the trunk, which are easily improved by a *rowing machine;* by that exercise the abdomen will also be fortified. Then my attention is directed to the muscles of the chest, which exercises are most successfully performed by a peculiar machine, invented by Mr. Huguenin, which can be regulated according to the strength of the pupil. I next proceed with the whole of the muscles of the column of the spine, which is done by exercises on parallel and horizontal bars. My pupils having gone through these exercises, I can put them, without danger, on more complicated ones, so as to call every muscle into action; by these means I do not leave any part without being strengthened, and when the exercises have been judiciously directed proportionably to their strength, I have always seen the greatest benefit result from them.

After having pointed out the mode of treating the single and double curvature of the spine, I would not, however, tell you that all cases are capable of cure, for then I should run the risk of being classed with the celebrated quacks, who would almost pretend to raise the dead.

When *callus* has been formed, it is very difficult to cause its absorption; all that can be done is to stop its progress, and if we can do that, we have accomplished much. But I may be allowed to say that I have been successful in remedying, in a great degree, these defects of the spine, and restoring the patient to perfect health.

Dr. Bell, of Dublin, in his certificate to my friend and coadjutor, M. Huguenin, professor of gymnastics, says, "several cases of distortions, contractions, and partial weakness, have been successfully treated, (without doubt few are so hopeless as not to be relieved) by appropriate exercises skilfully directed."

Thus the gymnastic exercises present to us a rational and agreeable substitute for the unscientific and often cruel mechanical apparatus which have been in use for the removal of distortions, but which too frequently increase the evil they are intended to remedy. I shall lay before you a diagram of a patient, taken from the Atlas of Professor Delpech, Surgeon to the king of France.

I will, before I leave this subject, direct your attention to the mode of dressing in

young ladies; in doing so they must not think for a moment I am going to interfere with their toilette. I wish merely to point out the harm they may do themselves with *stays and corsets*.

The abdominal, lumbar, and dorsal muscles, require to be left as free as possible, on account of their connection with the viscera; they have, comparatively, a great deal less motion than those of the extremities, but if confined with corsets you will prevent their proper action; and further, you will stop the circulation of the blood, and consequently the proper growth of the body.

Nothing can afford a more striking proof of the injurious effects of such undue compression than the examination of those who have been subject to the pressure of a tight-laced *corset;* the muscles appear pale, flaccid, and atrophied, contrasting strongly with the firm, ruddy, and well-developed appearance of those which have sustained no such artificial confinement; add to this the depression of the hypochondria, the *gene* and *embarras* of the stomach, *duodenum*, and the ascending arch of the *colon*. The most superficial observer cannot fail to appreciate the great extent of the mischief thus produced.

A gentleman, of considerable experience as an anatomist, has informed me, that upon examining the body of Mademoiselle Pauline Leblanc, a young French milliner, remarkable for the fairy-like petitesse of her *taille*, who died at Edinburgh, an early victim of consumption, he found that those portions of the lumbar and abdominal muscles, which had been subjected to the highly-strained pressure of the corset during life, were reduced to the consistence of a soft and flaccid cellular tissue, faintly sheeted with muscular fibres, and that the lace preserved several well marked traces of the long continued pressure of the ribs.

I am not afraid to say that in many cases of spinal curvature the origin is to be attributed to that mode of dressing. Corsets are, however, beneficial in some cases where there is great weakness and disease of the spine, but I cannot see any necessity for them in growing young ladies.

Dr. Clarke, in his Treatise on Pulmonary Consumption, says, "it is almost unnecessary to observe, that all tight dressing is entirely incompatible with the extent and variety of exercises which have been recommended, and ought therefore to be discarded." The idea that young females require stays as a means of support, is admitted by all medical men to be most erroneous; such mechanical restraint to the free motions of the trunk of growing females is productive of much evil and frequent deformity.

If girls were strengthened by the various means which are within the reach of all, and which nature points out to us as the best, such artificial support would not be necessary before maturity, and even then would be scarcely wanted. The danger will certainly be less to a grown up person who wears them, but it often happens they lace themselves so tight as to impede respiration, not being able to take any exercise without great difficulty, and in that case they must be very hurtful. About twelve months ago I saw a fatal instance in a young lady, at Lisburn, near Belfast; she was at a ball, where she had freely enjoyed the amusement of the night; she was confined in a tight corset which impeded the quickened circulation of the blood brought on by the exercise of dancing; she broke a blood-vessel, and died almost instantly.

CLINICAL LECTURE
ON
FRACTURE,
Illustrated by Cases in the North London Hospital.

BY MR. LISTON,
SESSION 1836.

GENTLEMEN—It is my intention to-day to make some remarks on fracture; it is a subject of considerable interest, and one in which the credit of the surgeon is much involved. Fractures are often of such a complicated nature that it requires a great deal of judgment to decide whether or no the limb can be saved with safety to the patient, or whether it would be better at once to remove it. I shall, in the first place, proceed to offer a few remarks on the method adopted by nature in effecting union of broken bones, and I then shall say a few words on a case in which this union did not take place. In the first place, then, the existence of a fracture is ascertained generally very readily, though there are some instances in which it is very difficult to distinguish it from dislocation; sometimes the situation of the fracture is very difficult to ascertain. You will many of you remember the case of an old woman who was brought to the hospital, a short time since, with supposed severe sprain of the ankle; it was not until after considerable handling of the parts in the neighbourhood of the injury, that we could detect the presence of fracture in the lower part of the tibia. The *symptoms of fracture* which generally present themselves, are a loss of power in the injured limb, deformity, shortening, and considerable swelling, and also pain on motion; to these may be added the most important of all the symptoms—crepitus. Fractures take place in all parts of the bones, sometimes in one direction, sometimes in another, as directly across the bone, or more in the direction of its axis; the direction of the

fracture depends a good deal on the way in which the injury has been received. Fractures by direct violence, such as a blow, or the fall of a heavy body, are generally transverse, whilst those which occur from force exerted in the direction of the axis of the bone, as when the bones of the leg are broken from a person alighting from a height on the soles of his feet, they are generally oblique. Bones, too, are frequently broken by the action of the muscles; several instances of this kind you have seen in the hospital; these accidents occur even when the bone is perfectly healthy, but much more frequently when the bone is loaded with fat, and its walls are thin. You will remember the case of the woman Elgee, aged 49, in ward 2; she fractured the humerus by the action of the muscles, in extending the hand in her wish to save something from falling. She had laboured for a long period under some affection of the spine, for which she had been confined to her bed. She had also a carcinomatous tumour of the right mamma, and the neighbouring lymphatic glands had become affected; the other mamma, too, had taken on a diseased action: she had also a very hard tumour under one of her ears. We thought at first that the fracture might have originated in some disease of the bone, and that it had taken on the diseased state of the system. Such diseased states are very common in bone, and you will see many specimens illustrative of it in my collection. We found, however, the cure went on well and rapidly, the swelling quickly decreased, and the bone became perfectly consolidated: it is probable that the osseous system, in this case, was not perfectly healthy, from the long confinement to bed, though no malignant degeneration had taken place.

In fractures there is generally considerable laceration of the soft parts, and there is extravasation of blood; it is necessary always to well examine a fracture when you first see it, in order to ascertain the exact nature of the injury, and to save the patient the pain of further manipulation; there is a quantity of blood effused into the cellular tissue, the vessels of all the neighbouring parts are excited, and the bone is thus to a certain extent steadied, as the slightest motion gives acute pain; the periosteum and medullary membrane are the portions which chiefly suffer, and are the soonest repaired by a secretion and organization of lymph. You observe in this specimen a deposit of new matter adherent to the bone, and under the periosteum. In union of divided bones there is first excited action in the circulation of the part, and organizable matter is effused, and the new bone is deposited in it; a sort of plug of bone is formed in the medullary canal, as is osseous matter, in the form of a broad ring, under the periosteum: occasionally, spiculæ of bone are found in the inter-muscular cellular tissue. This arises from the pieces of bone having been driven out of their places, and still retaining their vitality and receiving nourishment from the neighbouring vessels, and furnishing deposits; some people have hence supposed that all the vessels in the neighbourhood of a fracture contribute to the formation of callus. Should these portions lose their vitality, they are not absorbed, but an abscess forms around them, and they are thrown off. The new material that is placed between the ends of the divided bone remains soft for some time; the outer callus, after five or six weeks, becomes firm and able to support the limb. We had a case lately, in which five weeks was sufficient for this to take place. The material between the broken extremities subsequently becomes ossified; sometimes, however, the permanent callus is a long time in forming. Here is a preparation of two ribs which had been broken for two months—on the one side is bony deposit, on the other ligamentous union has taken place; between the broken extremities there is merely a substance like fibro-cartilage. Here is a drawing of a humerus, which was broken 110 days, and here you will observe union is not complete—the definitive callus is not formed. From one cause or another, in some cases, as I have mentioned, the union is not carried forward, but remains merely in a fibro-cartilaginous state, forming a sort of false joint at the seat of the fracture. It is said that bones do not unite readily in old persons, or in patients who have suffered considerable depletion. I believe, however, if the parts are well put together, and kept for some time in a proper position, in time all will go on well. Sometimes, though, the parts will not unite even in the middle period of life, while the patient too is in a sound state of health; the cause of this is unaccountable, but it probably often arises from the broken surfaces being allowed to move too frequently against each other; some surgeons, indeed, proceed occasionally as if they wished to form a false joint. I never had but one case in which the bone did not unite, and this arose from the misconduct of the patient; the gentleman was very fond of playing at cards, and, on the second night after the receipt of the injury, he cut the splints shorter for the purpose of enjoying his favourite amusement; he subsequently, I understood, received a fall from his horse, and bent the limb.

You will remember a patient we lately had here, who had received a comminuted fracture about nine months before, of both bones of the arm. It is said in the report that the bone was broken in four pieces; this is his own statement, but it is probable that it was not the case; it will not do always to believe these statements. It was

nine days before the parts were put up; splints and bandages were applied, and have been continued to the present time, (November 4th), the date of his admission; it is probable he used his arm; no union has taken place, but a false joint is formed. Various means have been employed for the purpose of bringing about union in cases of this description, such as rubbing the extremities of the bones forcibly against one another, but this generally fails; it requires a very great deal of excitement before the deposition of bone takes place. Mr. White, of Manchester, proposed cutting off the ends of the fractured bones for this purpose. It has been supposed that portions of muscle sometimes get entangled between the divided bones, and it is necessary to remove these by cutting down upon them, before bony union can take place. This idea is a very absurd one. I once cut off the extremities of the bone after other means had been tried without success. I cut two large pieces off, and yet, though the limb was kept in splints for many months, union did not take place. It is also recommended to cut down upon the parts, and apply escharotics to the ends of the bones; this, as well as the long continuance of pressure, have been tried and failed. In the above case I used a seton, a practice I have found pretty generally successful, and I believe would be even more so if the operation were properly performed; that is, if considerable excitement were produced in the ends of the bone, and the seton was only allowed to remain in for a short period, not, as in some cases it has been, for weeks; for this I think counteracts your object by producing too profuse and long-continued discharge, which is prejudicial in the process of union. In this case I cut down upon the extremities of the bones, avoiding as much as possible interference with muscles, nerves, and vessels, and destroyed the smooth surfaces of the bones as much as possible. I then passed the seton across, and destroyed the substance interposed between the ends of the bones. Quiet at first in these cases is not altogether necessary; some excitement favours the formation of bone. When considerable inflammation is raised, then remove the seton, and keep the parts in strict apposition. I used this triangular perforator, and a strong seton needle in the operation.

After making some incision with a bistoury in a line with the fracture, and disturbed the surrounding parts as much as possible, the seton needle was then passed. At the expiration of two days a larger seton was introduced, with some red precipitate ointment on it; pain and inflammatory swelling quickly came on. The operation was performed on the 5th of November; and on the 12th the limb was put into splints, in such a way as we were able to evacuate some matter which had formed without disturbing the bones. He kept them on until the 3rd of January, when the patient was discharged cured; and I should be inclined to pursue this plan of treatment in all similar cases.

Reviews.

On the Analysis of the Blood and Urine in Health and Disease, with Directions for the Analysis of Urinary Calculi. By G. O. Rees, Esq., 8vo. pp. 147. London: Longman, & Co. 1836.

The progress of animal chemistry has been extremely rapid during the last few years; and the subject is one of interest both to the student and medical practitioner. Though the humoral pathology of the ancients was based upon hypothesis only, it cannot be denied for a moment that there are diseased conditions of the blood, as well as of the secretions and excretions. The labours of Stoker. Clanny, Stevens, and O'Shaughnessey, have convinced the profession of morbid states of the vital fluid in fevers, yellow-fever, and malignant cholera; and have led to a more correct analysis of the blood. The object of the author before us, is to exhibit a concise view of those plans of analysis, which may be performed simply, usefully, and at a small expense; requiring for their execution, care and patience rather than skill and perfection in manipulation. In this he has admirably succeeded, and so clearly described the different steps in analysis, that any student may undertake the investigation to which it refers. As animal chemistry is as yet too much neglected and uninvestigated by the great body of the medical profession, and as it is chiefly cultivated by the rising generation, we shall place our author's views before our readers, with the hope of extending the study of this important branch of pathology. In a well written and concise introduction, Mr. Rees informs his readers of the manipulations and tests required in animal chemistry, and these we must give in detail.

"Before I enter on the description of processes, I feel it necessary to offer a few observations on the cautions which ought to be observed in the more important steps of

manipulation. It may also be proper to describe the uses of one or two contrivances to which analytical chemistry is pre-eminently indebted, and without which it is difficult to conceive how any degree of perfection could have been attained in the prosecution of analysis. I shall proceed at once, therefore, to the descriptions of the following operations, viz. Evaporation, Filtration, and Incineration; concluding with a few observations on the precautions which are necessary in weiging fluids and solids.

"*Evaporation.*—This may be performed at different degrees of heat; and the greatest care ought to be taken in choosing a temperature suited to the nature of the fluid submitted for analysis. Thus, if urine be experimented upon, it is impossible to use a continued temperature, even of 212 degs. Fahrenheit, without risking the loss of a portion, at least, of the urea, which is one of its most important constituents. When the serum of blood is experimented upon, a heat of 212 degs. is absolutely necessary, for the purpose of rendering the albumen entirely insoluble in boiling water; indeed, it has been stated, that a heat of 225 degs. is necessary for the purpose; but this is not the fact, as will be found on experiment, particularly if the serum be thoroughly dried, and then treated, while warm, with water at 212 degs.

"*Filtration.*—Considerable care is requisite in performing this operation; fine white bibulous paper should be used, and the filter may be washed with distilled water. It is often necessary to perform many ablutions of the filter, in order to wash out from the paper all the fluid for analysis: these washings are, of course, to be afterwards added to the first-filtered liquor, and evaporated with it in continuing the examination. When pouring from any vessel into a filter, the lip of such vessel should be kept perfectly dry, otherwise the fluid is liable, after passing the lip, to run backwards to the bottom of the vessel, and thus to be lost. These may seem trifling circumstances; but persons who are accustomed to these operations are well aware of the value of such remarks to the uninitiated.

"*Incineration.*—Constant attention is necessary in this process, and much tact requisite in placing the crucible in proper positions in order to expedite the dissipation of the carbonaceous matter. The crucible should be somewhat shallow, and of the form of a dish or flat capsule. It should be placed on the top of the flame of the circular-wicked spirit lamp, and with a slight inclination towards one side; this position favours the constant fresh access of air, and assists in dissipating the carbon. The crucible should, of coure, be opened immediately that the animal matter is charred; but a loose cover ought to be placed upon it before this, in order to prevent the loss which would otherwise occur by the rapid escape of gases, generated on the application of heat to the fresh animal matter.

"The matter for incineration should be placed gradually in the crucible, piece by piece, which is a further security from loss. The crucible is to be managed by a small pair of forceps with scissor handles, similar to the surgical dressing-forceps.

"*Weighing.*—There is, perhaps, no operation in chemistry which demands so much attention as that of weighing; for the substances to be weighed are frequently of a nature that is destructive to the apparatus, and the balance is more easily injured than any other of the requisites of a laboratory. In weighing animal matters, both solid and fluid, there is continual danger of moistening the balance dishes, and thus interfering with the accuracy of the result.

"To the student in animal chemistry, I would advise the use of a balance, capable of turning at one fiftieth of a grain. This should be mounted in a balance lantern, and kept in a dry room. Accuracy is greatly ensured by the habit of weighing by counterpoise, which is by balancing the substance to be weighed, with dry powdered sand (or any other convenient powder); and then, on removing this substance, whose weight is to be ascertained, with counterpoising the sand in the balance with the weights, the most accurate result is obtained; for the number of grains, or parts of a grain required, must be identical in weight with the substance removed before they can produce the same effect, of precisely balancing the sand. By this method all that is wanted in the balance is a suitable degree of delicacy. The necessity for an equality of length in the scale arms (which is very difficult to procure) is thus obviated, though it is absolutely necessary to the perfect determination of weight by the common method.

"The weight of fluids for analysis may be taken by two methods, viz. by balancing them in a bottle whose weight has been ascertained previously; or by weighing the vessel and fluid together, and then noting the diminution of weight which occurs, when the fluid for analysis is poured out. The former method possesses the advantage of yielding a fixed quantity; for we can pour into the weighed vessel, exactly the weight of fluid we wish: but it is necessary always to wash out the weighing vessel with distilled water* after the weighed fluid is poured out, in order to remove the adherent portions in the bottle, which, of course, were taken into account when the weight was ascertained. By the second method we avoid the necessity of washing out the

* These washings must, of course, be added to the fluid for analysis, and evaporated with it in pursuing the analysis.

weighing bottle; for the weight we note is just that of the fluid poured out: but then we lose the means of procuring any fixed quantity of fluid which we may have desired. This, however, is no great disadvantage, since we can always calculate the proportional quantities in any number of parts we may choose. The weight of solid animal matters should be taken in an accurately balanced watch-glass, placed upon a curl of paper, which prevents its slipping from the operator; an inconvenience which occasionally becomes very distressing during manipulation, but which may be easily obviated by this simple expedient.

"I shall now proceed to describe the contrivances for procuring that degree of heat which may be requisite for the purpose we have in view, and shall notice some implements of analysis, which are eminently useful in the prosecution of animal analytical chemistry.

"*Water-bath.*—This may be divided into two kinds, viz. the fresh and salt water-bath. The former is formed by floating a dish in water, which is kept at a boiling temperature by means of a lamp or any other steady source of heat. Fluids placed in this floating dish are kept continually at the temperature of boiling water; that is at 212 degs. of Fahrenheit. The salt water-bath is formed in the same manner, excepting that the evaporating dish must be floated in a saturated solution of common salt instead of fresh spring water, by which means we can procure a heat of 225 degs. Fahrenheit.

"*Steam-bath.*—This may be divided also into two kinds, viz. the opened and closed. The former is eminently useful in the examination of fluids suspected to contain easily destructible animal principles, and is the one which should always be used, if admissible, in preference to any other sort of bath. It is formed by placing a dish over the steam issuing from a vessel in which water is kept at a boiling heat; care being taken that the evaporating dish do not touch the vessel of water in any part, but be supported over it by means of a small wooden rack. In this way we obtain a constant heat, which is far below that of boiling water. The closed steam-bath differs from the open, in being formed by a dish which perfectly closes the vessel from which the steam is issuing. It affords a very variable heat, which generally is about 212 degs. Fahrenheit. The fresh water bath may be preferred to this, except in cases where the evaporating dish is too heavily loaded to float in boiling water, and thus to form a water-bath.

"*Circular-wicked Spirit Lamp.*—This may be either a most useful or most mischievous contrivance, according to its construction. Certainly, nothing is more agreeable than being able to procure a bright red heat at small labour and expense; but it is difficult to conceive a more awkward accident than the destruction of a large metal spirit lamp: a catastrophe which too often occurs with those generally sold in the London shops. This arises from the rapid communication of heat from the wick cylinder to the reservoir, which, by causing the evaporization of a portion of spirit, at once determines the fate of our lamp. This evil may be sufficiently prevented by making the communication between the reservoir and wick cylinder simply with a very small tube, taking care to avoid all other contact between the cylinder and the body of the lamp.

"The sloping sides of the chimney of these lamps should be so formed as to throw the flame as nearly as possible to a point at the top, which tends greatly to increase the heating effect."

We have next a description of the tests, with cautions against procuring them from any but scientific chemists, whose preparations alone are sufficiently pure. Our author recommends Allen and Company, of Plough-court, as scientic men, whose reagents may be relied on. The list of chemicals necessary for animal analysis is the following:—

"Pure sulphuric acid, muriatic acid, nitric acid } Strong.

Dilute sulphuric acid, muriatic acid, nitric acid } Formed by mixing one part of the strong acid with nine of water.

Solution of caustic potash.
ammonia.
carbonate of potash.
oxalate of ammonia.
corrosive sublimate.
acetate of lead.
sub-acetate of lead.
alum.
ferro-cyanate of potash.
pure acetic acid (strong).
tartaric acid.
nitrate of silver.
muriate of barytes.
Tincture of galls.
Sulphuret of iron*.
Litmus paper.

* For procuring a stream of sulphuretted hydrogen gas:—This is done by placing the powdered sulphuret in a large phial, and adding sulphuric acid, diluted with three times its bulk of water. The gas which escapes can be conducted to the bottom of the fluid which we wish to act upon, by means of a glass tube, bent twice at right angles; one leg of which must be inserted air-tight into the cork of the phial; and the other (which must be made sufficiently long) is to pass to

Turmeric paper.
Alcohol—specific gravity ·833.
Rectified ether.

"The following instruments of analysis will now render our laboratory pretty complete:—

A platinum crucible.
A piece of platinum foil.
- - wire.
Test tubes.
Watch-glasses.
A blowpipe.
Glass rods.
A spirit lamp.
Test glasses.
Forceps.
A pair of scissors.
A bone spatula.
A steel spatula.
Two or three glass funnels.
Wedgewood dishes of various sizes."

We now arrive at the commencement of the work, and place it before our readers. It evidently does not admit of analysis, and must be given in detail.

"In treating of the analysis of the blood I shall first describe the method of ascertaining the proportion of fibrin, red particles, and serum contained in any specimen of that fluid. My reason for commencing thus is, that I may gradually introduce the student from the simpler to the more intricate processes. I have on this account preferred this simple quantitative examination as a commencement to the more complicated qualitative analysis which follows, and which, in strict propriety, should have preceded. It will be found, however, that this slight sacrifice of order is of the greatest utility to the student. After the qualitative analysis of the various matters entering into the composition of blood, our object will be to exhibit, in as concise a manner as possible, the most approved processes for making the quantitative analysis of the serum, both in health and disease.

"*On the Analysis of Blood in Health.*

"*Of the proportion of Serum, Fibrin, and Red Particles.*—The weight of the whole quantity of blood operated on being noted, the proportion of water and solid matter in the serum is first ascertained by evaporating a known weight of that fluid to dryness in a salt-water bath; the loss of weight indicating the proportion of water, and the residuum the proportion of solid matter existing in the serum. These proportions being observed, the next step consists in dividing the crassamentum into two portions of equal weight; one of which is used to ascertain the proportion of fibrin, and the other the proportion of red particles, as follows:—

"*Treatment of First Portion.*—The mass is to be cut into pieces as minutely as is possible, without losing any appreciable quantity of matter, care being taken that its precise weight be ascertained before comminution. The mass is now to be placed on a filter, with a stream of distilled or rain water so adapted that a constant supply be afforded to wash away the red particles and serum contained in the interstices of the clots. This process occupies some time, and may occasionally be assisted by careful pressure, exercised by the thumb and finger. In this manner the fibrine becomes freed from its admixture, and its weight is to be taken, after careful desiccation over a water bath.

"*Second Portion of Crassamentum.*—The second portion is now to be weighed, and then thoroughly dried over a salt-water bath. It is now again to be carefully weighed, the loss of weight indicating the proportion of water combined with the coagulum; but since all the water of the crassamentum exists in combination as serum, we have to subtract from the weight of this solid residuum a quantity of solid matter proportional to the quantity of water, and which belongs to the serum, and not to the crassamentum. This is at once done; since the proportions of solid matter and water which compose the serum, are ascertained at the commencement of the process. After this subtraction, it is obvious we have remaining the proportion of fibrin and red particles in admixture; but as the weight of the fibrin was obtained singly from the first portion of crassamentum which was operated on, we have only to subtract its weight, to ascertain the proportion of red particles. In this way we obtain the proportion of the fibrin and red particles: the deficit, of course, consists of serum, and the proportion of water and solid matter contained in this fluid being already ascertained, we can declare the weights of the water, solid matter of serum, fibrin, and red particles contained in any given specimen of blood."

The next part of the analysis consists in separating each constituent of the blood, which is described as follows:—

"*Method of separating each Constituent of the Blood for Examination.*

"The separation of each constituent of the blood may be executed in two ways; either by the prosecution of several processes on the serum, after having separated the fibrin and red particles of the clot, or by the method proposed by Lecanu, which yields the albumen, fibrin, and red particles in admixture. As this process, however, is adapted to the examination of blood before coagulation, and as the three principles in

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the bottom of the vessel holding the liquid which is to be subjected to the action of the gas.

admixture are easily examined by the first-mentioned process*, I shall proceed to its details. Lecanu recommends that the blood freshly drawn be mixed with a considerable excess of alcohol at 106 degrees Fahrenheit. Red flocculi are then precipitated, and a liquor remains, unprecipitable by the addition of more alcohol. The flocculi are now to be collected on a linen rag, and, after being strongly pressed, must be frequently treated with boiling alcohol, which is then to be added to the expressed liquor: from this process results a solid mass, insoluble in alcohol†, and a rose-coloured liquor, containing those principles of the blood soluble in weak and strong boiling alcohol. This liquor is now to be evaporated to dryness over a water-bath, and will be found to afford a yellowish brown very deliquescent matter. This is to be placed in a flask, and treated several times with ether: part only is dissolved, forming an ethereal solution A, and a residue B.

"A, ethereal solution, is clear, transparent, and of a yellowish colour. By spontaneous evaporation it leaves a reddish brown residue, of the consistence of turpentine, which is formed of two very distinct substances; one being oily, and the other of a crystalline, fatty texture. These may be separated by cold alcohol, which dissolves the oily matter, leaving the crystalline matter unchanged‡.

"This crystalline, fatty matter is now to be dissolved in boiling alcohol, which deposits it on cooling in scales resembling mother of pearl; it is without odour or taste, soluble in cold ether and boiling alcohol, and insoluble in a solution of caustic potassa; when decomposed by heat, it leaves a residue, containing phosphoric acid; it has a great similarity to cholesterine in appearance.

"The oily matter is now to be procured by the evaporation of the cold alcoholic solution. It is insoluble in cold and hot water; alcohol and ether dissolve it readily, assuming, at the same time, a yellow colour. It dissolves when gently heated in a solution of potassa; and if it be decomposed from its alkaline solution by hydrochloric acid, the fatty acids are formed.

"B, the residue (of the ethereal digestion which extracted the fats), is now to be treated with alcohol at 122 deg. Fahrenheit, until the mass no longer imparts colour to that menstruum. By this means we procure a yellowish brown liquor, and a fresh residue, C. This alcoholic solution, when evaporated, yields an orange-yellow deliquescent matter. Its properties are as follow:—It is soluble in water and alcohol; precipitable, of a brown colour by infusion of galls; precipitable by the subacetate of lead, the precipitate being soluble in an excess of that reagent. This substance is what Berzelius once considered as lactate of soda, mixed with peculiar organic matter. It is the osmazome of some chemists. Lecanu says that it does not give out the odour of meat when boiled, which is the case with osmazome, and therefore thinks that the latter, as obtained by former chemists, consisted of this extractive matter, mixed with a portion of the fats, which would produce the odour in question. This is, indeed, more than probable; since in most of the processes for obtaining osmazome no mention is made of any ethereal digestion, which would be necessary for the extraction of the fatty matters.

"C, the residue of the alcoholic digestion, is now treated with cold distilled water, which dissolves it almost entirely, leaving only a residue, very minute in quantity, which is insoluble both in hot alcohol and water, and is believed by Lecanu to consist of a mixture of albumen and colouring matter*. The aqueous extract, when dry, forms a mass which Berzelius has considered as a result of the action of hot water on albumen. Lecanu, however, considers it to be a combination of albumen and soda, which is more than probable, as its solution in water gives a precipitate with acetic acid, resembling albumen in its gelatinous state; and as the same body may be procured without the use of hot water, it is plain that the action of that fluid is not necessary to its existence.

"The blood, therefore, contains the following animal ingredients, capable of separation:—

Water.
Fibrin.
Colouring matter.
Albumen.

"* The hæmatosine may be procured by retaining the washings from the fibrin, and precipitating them with a solution of the subacetate of lead, which precipitates the albumen, leaving the hæmatosine in solution. This is to be decanted off, and freed from the excess of lead by the addition of sulphate of soda, which precipitates sulphate of lead. The solution must now be poured off from the precipitate, and on boiling it, the hæmatosine falls in brown flocculi.

"† Consisting of fibrin, albumen, and red particles.

"‡ Berzelius seems to consider a part of the fatty matters as peculiar to the fibrin.

"* This matter is probably in part, if not entirely, composed of what Dr. O'Shaunessey has called subrubrine, as that principle resists strong alcohol and water. It is, however, soluble in boiling dilute alcohol, but deposits on cooling. A portion of the subrubrine is probably left with the hæmatosine or colouring matter by the process here detailed.

Crystalline fat.
Oily matter.
Extractive matter, soluble in water and alcohol.
Albumen combined with soda."

Our author now proceeds to prove the presence of the several salts above mentioned in the blood, but his account would exceed the limits which we have allotted to his work in this number. We must, therefore, defer it until our next. We have, however, given a fair specimen of this production, to enable our readers to judge of its execution. It will, in our opinion, be productive of instruction to every junior chemist, and to any medical practitioner.

The London Medical
AND
Surgical Journal.

Saturday, April 30th, 1836.

IGNORANCE OF THE PEOPLE REGARDING MEDICAL AFFAIRS.

We shall now endeavour to shew the origin of some of the causes of the ignorance of the public with regard to the affairs of the medical profession. It must be obvious to every person that this profession has never yet met with the patronage it should have met with from the state; it has never been considered by the rulers of this country, as entitled to any consideration from them; it has never been looked upon in a national point of view; never treated in that manner which its usefulness and its dignity deserve. Charters, it is true, have been granted to three or four monopolies in this metropolis for the purpose of "improving the state of medical science;" but while these charters have given power to individuals to fix on a certain amount of education to qualify a man for practice, and by that means certainly raise the standard of medical knowledge; yet, while they to a certain extent act beneficially in this particular way, mark the mischief which they produce; their paralysing effect upon industry and genius. Who are the persons constituting the board of examiners in these institutions? How have they been elected? Has it been for talent in their profession? for superiority in any of its departments? Have they been elected by the profession as its guardians, from their merits? Alas! no! they are self-electing—self-perpetuating bodies, in which interest alone has a chance of success, and in which talent, and industry, and acquirement, are mere bye-words—weighing nothing in the scale, against the corruption of family interest and money influence. In the Church and the Bar, we are willing to allow, much goes by interest, but in these an individual has more opportunities of distinguishing himself unaided, than he has in the profession of medicine; and he gets honours and preferment, on the very strength of public opinion; a successful speech in Westminster Hall may pave the way, and has in many instances, led to a seat on the Woolsack, and other judgment seats of the courts of law and equity; and the talented preacher, if not always rewarded by the state according to his merits, at least becomes popular, and in that way secures to himself a reward for his exertions. But in the science of medicine it is different; they who only can be judges of an individual's merit, are either those who cannot serve him, or those who become jealous of him, and seek to destroy him. Shall the sacrifices that have been offered upon the shrine of persecution and corruption be forgotten? Shall the names of Grainger and of Armstrong sink into oblivion! they cannot—they will stand ever as martyrs in a glorious cause, and as monuments of the bitter enmity and relentless persecution of a corrupt and corrupting junto! We have stated that the Government of this country does not patronize the science of medicine, and we challenge an inquiry into the subject. What prospects of reward has it ever held out to superior medical men?

How have its appointments, such as have been necessary for it to make, been filled? Why, by courtiers and favourites; not by really great and talented men. Some few fawning hypocrites have, too, met with royal favours, and "sat at the tables of kings;" but to what have they owed this privilege?—to anything but merit—they have risen to "eminence" by low intrigue, and obsequious cunning; and they honour the high station they have acquired, by seeking in every way to injure the profession in general, by using all their influence to perpetuate a system of corruption, and to depress the energies of the human mind! So much for the patronized of the state, and the patronized of kings!

We shall continue the subject next week.

REFORM IN THE ROYAL COLLEGE OF PHYSICIANS.

We have briefly exposed the reform in the College of Physicians, and the motives that gave rise to it. A worthy contemporary of ours, who has been hired for years past by this body to abuse the members of the College, those of the College of Surgeons, and the great body of general practitioners, is now compelled to swallow all his vile advocacy of exclusion, and to become a reformer. He lauds, as in duty bound, his employers, as might be expected, and he ignorantly adds, in his fulsome adulation, that the College are empowered by their charter to examine surgeons and apothecaries, as if their moth-eaten charter could repeal the statute law of the kingdom. What a profound medical jurist must be the College hack and slave. Perhaps he will astound us, next week, with the information that the new reformers propose to supersede the College in Lincoln's Inn Fields, and the Society of Apothecaries. Softly, kind Sir, the College have no such power, and are insane to dream of obtaining it, at least as far as the surgeons are concerned. Let us only remember, that after the exclusion of surgery for three centuries, men, who are as ignorant of its science and practice as sucking doves, should propose to examine in it and grant diplomas. This was of a piece with the wise proposal of Sir A. Carlisle, that women only should be allowed to practise midwifery, and that hospital-surgeons, who are obliged to be ignorant of its science and practice, should be called in in difficult cases. This proposition was about as wise, and as likely to be approved of by the profession, as that of the exclusives and incapables of Pall Mall, in presuming to examine in surgery. This ridiculous scheme is too absurd to require another remark. Perhaps it was merely thrown out as a feeler, while the bye-laws are being prepared. It is impossible to foresee what these will be, as the most extravagant quixotism would not at all surprise us. We are, therefore, unable at present to reply to the inquiries of some of our correspondents, but shall give them the earliest information on the subject. We cannot help adding, that the study of surgery, obstetricy, and forensic medicine, is now required by the Royal College of Physicians, although a little month since these branches of science were proscribed by that learned body. Such is the consistency of monopolists and anti-reformers, when the pressure from without is too much for them.

The College of Surgeons have also advanced in reform, by publishing a list of the preparations they will require in future from lecturers on anatomy. This is a most magnanimous stride in reform. It is also rumoured that the Apothecaries' Company are incubating something in their line, which is speedily to illuminate the profession. How disinterested these corporate reformers! How anxious in forwarding the interests of the members belonging to them! How beneficial are the proposed alterations to the advancement of science! But, in sober earnest, we must observe that the corporations are so terrified by the intended university project, that they really do not know what they are about, or what to do to save themselves. As to their sham reforms, they are only intended to blind the legislature and government; but we very much opine that the optics of both bodies are too clear not to perceive the flimsy veil attempted to be thrown over them.

Cases Illustrative of the Injurious Effects of Administering Stimulating Remedies during the Inflammatory Stage of Gonorrhœa. By Henry James Johnson, Esq.

I. *Inflammation of the Absorbents of the Penis.*

Case 1.—I was requested to see a gentleman who had lately arrived from Ireland, where he had contracted this, his first, gonorrhœa. Whilst travelling he had done little for it. On his arrival in London, about a week after its first appearance, he applied to a medical man. At that time there was much pain in micturition, and the discharge was yellow and abundant. His medical attendant prescribed cubebs. Next day the discharge was diminished, but there was much scalding, and the penis appeared rather swollen. The cubebs was continued, with purgative medicines. The discharge decreased, but the swelling of the penis augmented.

Three days afterwards, the patient came under my care. The penis was then considerably swollen—the integument was rather red, and two red lines extended along the dorsum of the penis to the pubes. On examination I found two hardened cords, almost as large as the thin end of a common clay-pipe, stretching up the dorsum of the penis, beneath the reddened lines. They commenced at the loose prepuce, and proceeded to the groin, where one of them joined an absorbent gland, enlarged to the size of a filbert. These cords were tender on pressure. The glans penis was rather swollen, the discharge yellow but scanty, the pain in micturition considerable.

Leeches, evaporating lotions, diluents, confinement to the sofa, and the lowest diet, were prescribed, in addition to calomel and ipecacuanha at night, and senna, with colchicum each morning. A week or ten days elapsed, before the swelling of the penis had disappeared, or the more decided inflammatory symptoms had vanished. At the expiration of that time there was still some scalding, and thickened cords were felt. Purgatives with demulcents were persevered in, and the mercurial ointment with camphor was applied to the penis. In about a week more, discharge only remained. An injection of the acetate of lead and decoction of poppies removed this in the course of a week, and it never afterwards returned. I afterwards circumcised this gentleman, at his own request. He laid the whole blame upon his prepuce, and was determined to be quit of it.

I mentioned that a case of inflammation of the absorbents of the penis had occurred, although antiphlogistic treatment was employed in the first instance. The following is the case in question:—

In June, 1834, I attended a gentleman, about twenty-two years of age, for his first gonorrhœa. The symptoms were decidedly inflammatory at the commencement, and it was necessary to have him cupped upon the perineum, in addition to other measures of depletion. The pain in micturition ceased in about a fortnight, and, at the end of the third week, copaiba was taken, and an injection of the acetate of lead employed. In a few days the discharge disappeared, and the gentleman appeared to be well. But, after lying down on the grass, he was attacked with what was thought to be rheumatic fever. This occurred at his own place, some little distance from town, and the gentleman was under the management of a physician. At the end of three months he recovered—a permanent stiffness of the right elbow remaining. I am inclined to suspect that this was probably "gonorrhœal rheumatism," rather than simply rheumatic fever.

In June, 1835, this gentleman again became my patient, on account of a second gonorrhœa. It may be mentioned that this was contracted from the same female as the first had been. He came to me immediately after the first appearance of discharge. There was much redness of the glans—copious thin and yellow discharge—much pain in micturition—and a feeling (probably nervous) of aching in the joints. Antiphlogistic remedies were prescribed. The discharge and scalding increased rather than diminished—painful erections were experienced—and the prepuce became red and swollen. This was at the end of the first week. In a day or two a hard cord could be felt, extending from the prepuce to the pubes, and terminating there in an enlarged absorbent gland. Leeches to the penis and a perseverance in antiphlogistic treatment removed these symptoms, in about three weeks from the commencement of the gonorrhœa, and cubebs, with injections of the acetate of lead and sulphate of zinc, effected a complete cure in ten days or a fortnight more.

Inflammation of the absorbents of the penis may be regarded as not an uncommon consequence of inflammatory gonorrhœa. It generally commences with slight redness and puffy swelling, from serous infiltration of the prepuce. Then a red line is generally, but not always, seen on the dorsum of the penis; and, whether this exists or not, a hard cord is always felt. It usually proceeds to an enlarged and inflamed absorbent gland on the pubes, or in the groin. Occasionally, a circumscribed enlargement occurs on the dorsum of the penis, immediately behind the corona glandis. In one case, I saw this terminate in suppuration. This is consistent with what we observe in cases of inflammation of the absorbents in other parts of the body. The inflammation here and there extends from the lymphatic to the contiguous cellular tissue, and abscess in the latter is the consequence.

The treatment of inflammation of the absorbents of the penis is too obvious to require much notice upon my part. Leeches—evaporating lotions with the acetate of lead—calomel—purgatives—diluents—and rest on the sofa or in bed—must be employed with more or less vigour, in proportion to the quantum of inflammation in the individual case.

II. *Abscess in the Cellular Tissue of the Perineum.*

As the corpus spongiosum urethræ traverses a region—the perineum—abounding in cellular tissue, it cannot be a matter of surprise that inflammation should occasionally spread into that tissue, and occasion suppuration in it. This is sometimes productive of serious, almost always of troublesome consequences. The superficial fascia of the perineum, being closely connected with the fascia lata, at the tuberosity and ramus of the ischium, is apt to confine what matter may form, and to bottle it up in the perineal space. Between the superficial fascia which constitutes its floor, and the levator ani, with its fascia, which forms its shelving roof, is a mass of loose and adipose cellular tissue, offering no resistance to the deposition of pus, readily filled when that is deposited, and reposing behind upon the rectum, and in front on the urethra.

The cellular tissue, although it transmits the vessels of the other tissues, is not itself very vascular. The free communications between its cells permit the rapid accumulation of fluids, and these, when accumulated, speedily strangulate the filamentous structure of the cells themselves, cutting off their small supply of blood, and occasioning their partial or general sloughing. The series of changes from the simple effusion of serum and heightened vascularity of the cellular tissue, up to engorgement with lymph and pus, and consequent destruction, may be seen by incising a limb, in which subcutaneous diffuse inflammation exists.

Inflammation, then, of the cellular tissue of the perineum occasionally follows acute gonorrhœa, and may terminate in either of the following ways:—

1. It may form an abscess, pointing in the perineum, and communicating neither with the urethra nor the rectum.

2. The abscess may communicate with the urethra.

3. The abscess may burrow deeply, communicating with the urethra or rectum, or both, and even terminating fatally.

I need not detail any cases of simple perineal abscess, consequent on gonorrhœa. Most surgeons must have seen examples of it, and it requires no particular method of treatment. The surgeon, however, recollecting the disposition of the cellular tissue in the perineum, should leech freely to prevent suppuration; and, if that has occurred, should use the lancet early and not be afraid to plunge it deep. An early, a free, and a deep opening will frequently prevent much mischief.—*Medico-Chirurgical Review.*

LONDON MEDICAL SOCIETY.

Monday, April 25th, 1836.

DR. WHITING, PRESIDENT.

Colica Pictonum.

Mr. Pettigrew remarked, with reference to the discussion of last week, that in a painter, who had been subject to colica pictonum, and who died from epilepsy, he found, on a post mortem examination, a remarkable dryness and transparency of the pericardium, so that the heart could be observed through that membrane; there was also an unusual dryness of all the serous membranes. The man had been exceedingly dirty, and covered with paint.

Anomalous Affection.

Mr. Meryon asked the opinion of the Society in the case of a youth, aged fourteen, to whom he was called about four months since, having been taken in a hysteric fit; previous to this he had been subject to constipation of the bowels, often going for two or three days without a motion. When Mr. M. was called in, all the symptoms of hysteria were present: antispasmodics relieved the attack: the next day the patient had three or four fits, which gave way to the administration of antispasmodics. He continued to have three or four fits daily, for about seven days: at the expiration of this time, the pulse being small, thready, and not quick, and the bowels regular, carbonate of iron was given, in ten-grain doses, every six hours: there did not seem to be any effect from this remedy, though it was carried by degrees as high as two-drachm doses. A physician, who was called in, considered that the continuance of the carbonate of iron, with purgatives, would be beneficial; they were accordingly continued for some time. The fits then altered to an anomalous kind: there was no sobbing, or crying, or other symptoms of hysteria, but when he saw a shadow on the wall, or anything trifling amazed him, he threw himself into the most ludicrous attitudes; this state also continued for some time. A blister was now applied to the back of the neck, and the fits assumed another character, indicative of great vascular excitement: he was conscious of every thing going on around him: on the fits going off, he lost all power of recollection for about two hours: this kind of fit would last about a week. One-eighth of a grain of the extract of belladonna was now given, instead of the iron, every six hours; which, though it had an effect on the pupil,

did not seem to exert any influence over the fits. Throughout the whole complaint great sensibility of the abdomen was present, and he flinched a good deal when touched; when hard pressure, however, was applied, it seemed rather to relieve the pain. About a month since, the fits changed again: he was conscious of some things, and not of others, and knew one member of the family, and not another. Counter-irritation was applied along the spine without affecting the fits: aperients had been used throughout the affection. A week since, lunar caustic had been freely applied along the spine, which was so tender, that, on the slightest pressure along the spinous processes, he complained of pain; this pain extended to the abdomen and chest: the caustic did not produce vesication; it was applied until he cried out with the pain it produced. He (Mr. M.) was inclined to think that the disease had its origin in the constipation. The patient had now lost the power of articulation, and he had become extremely irritable and passionate. Would it be well to put him under restraint? He had been a remarkably precocious boy, and had been exceedingly quick in the acquirement of knowledge. Some short time since, as he was anxious to read some book, he was allowed to have the Arabian Nights' Entertainments: during the fits, though he has not naturally a good memory, he repeated, word for word, those tales he had read: when the fit was over, his memory failed him.

Mr. Kingdon thought restraint would do harm; and suggested, that as the application of the nitrate of silver had been beneficial in its outward application, that it would probably be of service, if taken in quarter-grain doses three times a day, internally, for the purpose of relieving irritability of the mucous membrane.

Dr. Whiting had seen the insertion of a bold seton on the vertex of great benefit in like cases.

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 23rd, 1836.

DR. ADDISON, PRESIDENT.

Tumour in the Abdomen—Ileo-Vaginal and Recto-Vaginal Fistula — Impurity of the Thames Water.

Tumour in the Abdomen.

Mr. Hale Thomson said, in reference to the tumour found in the right iliac fossa of a man, which we mentioned in our last, that it had been examined by Mr. Squire, of Oxford Street, who decided that the nucleus, which was supposed to be an orange pip, was in fact composed of phosphate and carbonate of lime. It appeared that the tumour had at one time been attached to the peritonæum lining the parietes of the abdomen, by a membranous connection, which had been ruptured.

Ileo-Vaginal and Recto-Vaginal Fistula.

Mr. Thurnam exhibited a preparation which had been removed from a patient lately in the Westminster Hospital. The patient was a woman aged 36, who in September last, was delivered with instruments; the obstetrician said the child had been dead in the uterus for some days. Since her confinement she had been very ill, and suffered from severe pain in the hypogastric region; the diarrhœa had gone on to a great extent, and she had sunk into a state of extreme emaciation. She had only a few leeches applied. Four months after the delivery, she was admitted into the hospital. She was then suffering from constant watery diarrhœa and great emaciation; she complained of little or no local pain. The nurse reported that the stools passed by the vagina. Mr. Thurnam instituted a very careful examination, expecting to detect recto-vaginal fistula. This, however, he did not succeed in doing. He did not use the speculum, as he was fearful of the great exhaustion the patient laboured under. Every possible means were employed for the relief of the diarrhœa, without any good effect. She became weaker and weaker, and died about a month after her admission. On examining the body, no fluid was found in the cavity of the peritonæum; the fundus of the uterus was bound down to the sacrum by adhesions involving the left ovary, Fallopian tube, rectum, and several convolutions of the ileum; both the rectum and ileum were compressed against the sacrum by the fundus uteri. The whole of the large intestine and the termination of the ileum were remarkably contracted, and had not afforded a passage to the fæces, a hardened collection of which was in the rectum, evidently for a long period: they contained a thick, glutinous, and greyish mucus. At the upper and right side of the vagina were a number of fistulous openings into the lower portion of the ileum, and one small one into the rectum. The mucous membrane of the vagina was in a state of sloughy ulceration. It appeared to be an uncommon lesion following puerperal inflammation of the pelvic portion of the peritonæum. He (Mr. T) wished to ask the Society if there was any cure in such a case? Might it not be mistaken for the more common recto-vaginal fistula? and if the treatment by actual cautery, as recommended by Dupuytren, was followed, what might have been the result? Could the ileum, involved as it was in the contraction, have regained its function of transmitting the fæces?

Mr. Quain thought a cure should be attempted even in such a case as this.

Dr. JOHNSON thought the only treatment that would be likely to be attended with success in such a case, would be the endeavour to unload the lower bowels, by means of injection, &c., so as to give the false passage a chance of closing.

Impurity of the Thames Water.

Dr. GRANVILLE was called on for his paper on the Impurities of the Thames Water. After speaking of the importance of the subject, he said three plans had been proposed for the purpose of purifying the water:—

1st, That the water should be filtered, or allowed to stand for some time in the reservoir.

2nd, That the water should not be taken out of the metropolitan district of the river; and,

3rd, That the water be no longer taken from the river, but that a supply should be procured from rivers in the neighbourhood of London. The two last plans were not those which the Society had to consider. With regard to the filtering of the water and allowing it to subside, that was the most important question. It had been proved that the impurities received by the Thames from the cloacæ of London were not washed away, as some had stated, by the tide, but that the tide only "churned" them, as it were, together—no filtering or subsidence could possibly remove the essence of these impurities—the salts which were soluble remaining after such processes, even though the water was apparently clear and sweet. Such being the case, it became a question whether the health of the inhabitants of London was affected; and he asked the experience of the members of the Society on this head. It had been said that the Thames water was the best to take out on long voyages, as it became beautifully clear and pure after undergoing decomposition. Dr. Bostock had, however, by accident, detected that the Thames water, after being kept for some time corked up, and undergoing decomposition, acquired from two to three times more of chalk, from five to six times more of gypsum, and twice the quantity of muriate of soda. Hence the Thames water, which was said to be the softest and best for general use, was in fact exceedingly hard, and must be unquestionably unwholesome.

Dr. JOHNSON said that it would always be difficult to detect specific disease as the result of impure water-drinking. In a metropolis like this, where the depressing passions, late hours, and intemperance so much prevailed. He had certainly removed from Spring Gardens to Suffolk Place, because the water in the latter was supplied from the New River; and he found that if ever he drunk the Thames water it gave him a pain in his stomach.

After some further observations the question was adjourned.

To the Editor of the London Medical and Surgical Journal.

SIR—In the account of my experiments with the two tests for the salts of iodine, that I exhibited at the Westminster Society on Saturday the 16th, there are the following errors:—

"I did not state that all the salts of *iron*, but that those of iodine are converted into *hydriodates*. In the second place I stated, that the two substances which can decompose these, whether in simple or mixed fluids, are chlorine in its *gaseous* state, and nitrous acid gas: and I demonstrated this fact by experiments. I stated, that it fortunately happened that these gases could always be under the control, and at the command of all practitioners, through the means of the *nitro-muriatic* and the *nitrous acids*. I showed that either of these acids can detect the hydriodate of potassa in aqueous fluids, in the proportion of one grain of the salt and *one hundred and forty thousand grains* of water; and, in the same proportion, in any mixed fluids, merely by adding starch to the fluid, and then touching it with a rod dipped in either of the acids. It is not the iodide of *amylum*, but of *amidine* that is formed, and gives the blue colour to the solutions. I did not state, that the insoluble iodides can be detected by these acids; but I demonstrated that they can be detected by gaseous chlorine, by heating some biniodide of mercury in a tube, and then pouring chlorine gas over it.

The salt to be added to the decoction of burnt sponge is, the *protosulphate*, not the *prosulphuret*, as stated in your report.

You will oblige me by correcting these mistakes. Yours truly,

A. T. THOMSON.

MEDICAL CORONERS.

ELECTION OF CORONER AT LIVERPOOL.

WE have perused with much pleasure the following report of the proceedings of the Town Council for the election of Coroner; as it shews that public attention is now being directed to the expediency of electing medical practitioners to the office in question. We hope to see medical candidates on all future occasions in every part of the kingdom:—

The Town-clerk read applications from the following gentlemen, as candidates for this office:—

Dr. John Rimmer, Kirkdale.

Dr. Philp—his name was withdrawn, by his desire, at the request of Mr. Stuart.

Mr. H. Forshaw, attorney, North John-street. The applicant stated that he had acquired some anatomical and surgical know-

edge, by reading professional books in his eisure hours, and by attendance on the lec- ures of Dr. Formby.

Mr. P. F. Curry, "one of the solicitors to he reform association of Liverpool." This pplicant stated that he had made medical urisprudence his study, both in London and iverpool.

Mr. George Rogerson, Suffolk-street, Duke-street, who had addressed a letter, in he pamphlet form, to the members of the ouncil, on the duties of the coronership, nd the necessity of having a medical man o fill that office. (Mr. Rogerson had sent in he above letter, printed, with his name hereunto written, but it had escaped the Mayor's notice. On being reminded of it by reporter, rather irregularly, we confess, ecause a non-councilman has scarcely any ight to interfere, even as *amicus curiæ*—the Town-clerk fetched it from an adjoining oom).

Dr. Carson then spoke, at some length, in avour of the appointment of a member of is own profession, as best fitted to fill the ituation of coroner—referred to the letter n "the duties of a coroner," published by Mr. George Rogerson, whom he designated s "an eminent member of that profession;" nd concluded by moving that the office of oroner be filled by a medical man.

Mr. Logan seconded this motion.

Mr. John Holmes moved as an amend- ent, that Mr. Curry be appointed to the ffice of coroner.

Mr. J. Hornby seconded the amendment.

Mr. Lawrence Heyworth said that he was nxious to support this amendment, because e understood that Mr. Curry had made edicine his study, as an amateur.

Mr. Bolton thought it unfair that the mendment, taking precedence of the motion, hould be put in that form, the direct effect f which would be, not merely to decide the uestion as to whether the coroner was to be member of the medical or legal profession, ut to place Mr. Curry in the situation. This as not dealing fairly by the other candi- ates, who would thus lose the chance of eing voted for. He would suggest that the ure subject of medical or legal coroner be rst decided upon.

Mr. Coglan said that he felt much diffi- lty in opposing a gentleman of so much eight, talent, and experience, as Dr. Carson. e thought that the coroner should be a entleman accustomed to examine legal evi- ence, and able to charge the jury with effect d brevity. He did not agree that the roner should be a medical man, because ere might be a chance that he would him- lf differ in opinion from the medical wit- sses, and thus unduly bias the judgment of e jury by his charge. Dr. Carson, he was re, would agree with him that it *was* possi- e to have a difference of opinion between doctors, because, unless he (Mr. Coglan) was much mistaken, some years ago Dr. Carson exhibited a practical instance, in his own person, of difference of opinion from others in the profession.

Mr. Browne thought that it would be best to take the "yea" or "nay" upon Dr. Carson's motion.

Mr. Bolton expressed himself of the same opinion.

Mr. Robinson proposed that the names of the several candidates should be put at once.

Mr. Egerton Smith—I most decidedly object to the council's being committed to any general opinion such as Dr. Carson's motion pledges us to. There is no necessity that we should decide this abstract point. We can judge from individuals who is best fitted for the appointment: there are several candidates, and one of them combines the two qualifications of medical ability with legal knowledge. This is Mr. Curry, for whom, I have no hesitation in saying, I shall give my vote, because I consider him the best qualified candidate.

Dr. Carson's motion was then put, and was lost. The majority was not told, but in favour of the motion of the learned Doctor there appeared but two.

The resolution of the council, that Mr. P. F. Curry be appointed coroner during good behaviour, was then read and passed.

Colpodesmoraphy — Strangulation by Suture, of a portion of the Vaginal Mucous Membrane. By Dr. Bellini.

GENTINA ROSSI, the wife of a Jewish merchant, of Ferrara, of about 40 years of age, had suffered for two years and a half, from prolapsus of the posterior part of the vagina, which protruded externally on the perineum and anus, dragging with it the anterior part of the rectum, which, united to the vaginal wall, formed a tumour externally, of the volume and form of a hen's egg. Dr. Bellini was consulted, and he proposed at first to apply a good many leeches to the tumour, not so much with a view of producing a sanguine emission, or of combatting inflammation, as to cause several centres of ulceration, and thus to obtain the results that M. Dieffenbach proposed by his multiplied incisions, and in which Dupuytren succeeded in prolapsus of the rectum. But another idea soon presented itself to his mind, and having been approved of by the patient and the physician in attendance, it was immediately practised in the following manner:—

The woman was placed on the edge of a bed, the surgeon, with a double forceps, seized the superior segment of the protruding tumour, and drew it down as far as possible. Then, giving the forceps to an assistant to

hold, he introduced a flat bent needle and a double thread, at the external edge of the navicular fossa or inferior vaginal commissure, making a semicircle with the thread round the part; and to avoid including the rectum, the left index finger, introduced into this intestine, served to guide the needle, so as not to penetrate more than the vaginal wall, so that in each suture there was about a line of this membrane included. Having reached the superior part, M. Bellini encircled it with four stitches, and then completed the horse-shoe by continuing the sutures to the bottom. Then it was only necessary to pull the end of one of the two threads, to raise, and as it were pucker up the hernial part, and with caution tie a knot at the base. The patient was enjoined to remain quiet, to use lotions of cold water; low diet, and bleeding were also ordered. There was neither pain nor swelling; she passed a tranquil night. An oleaginous purgative was next day administered, as also a lavement, in order to facilitate the evacuation of the fæcal matter; and, after having prescribed an antiphlogistic regimen, both local and general, and recommended the reserved thread to be tightened at the end of two or three days, M. Bellini gave the patient up to the care of Dr. Colla, her ordinary medical attendant. Fifteen days afterwards the Doctor wrote to M. Bellini as follows:—"Your patient is much indebted to your skill: she has passed her motions easily, though she has taken neither castor oil nor lavements. The tumour has fallen off at the end of ten days, without any accident, and without the thread being tightened; and every thing is now favourable in the region that has been so long afflicted."—*Gaz. Med.*

Dr. Marshall Hall, Dr. Ireland, and Dr. Fricke, were the first to propose this operation for prolapsus uteri.

Salmon, the Hygeist.

The fine of 200*l.* to the King, adjudged to be paid by Salmon, the "Hygeist," for administering unlawfully Morison's pills to the deceased Capt. M'Kenzie, will be given up by the Lords of the Treasury to the unhappy and destitute widow and children. This is poor consolation for the widow and children. The fine ought to have been five times the amount, and a year's imprisonment, at least; but such is the humanity of our Judges, that they generally foster empiricism. A similar fine was imposed on St. John Long for manslaughter; it was also immediately paid, and this "poor gentleman," as he was called by the judge, stepped into a splendid carriage, and drove home. It is stated that the costs of the trial were between 3000*l.* and 4000*l.*—a large sum amassed by the sale of poisonous pills.

Progress of Ophthalmic Surgery.

It is scarcely ten years since a famous London oculist appealed to the generosity of the public for the establishment of a dispensary or hospital for diseases of the eye, as he had cured *one* person, out of several thousand ophthalmic patients affected with cataract. Some of our oculists demand 100*l.* for operating on one eye, and 150*l.* if they operate on both. It appears by the following report, that our provincial surgeons are more successful than the lions of London:—

"*Liverpool Ophthalmic Infirmary.* — The annual report of this very useful and modest unobtrusive institution shows that with limited pecuniary means it effects limitless good. During the last twelve months, forty-two operations for cataracts have been performed —*forty of them with success.* Surely, this should encourage liberality towards such an institution."

Some twenty years ago, every case of cataract was sent to London; but now the disease is as successfully treated in the provinces.

Case of Abscess in the Perineum. By H. Johnson, Esq.

When house-surgeon to St. George's Hospital, I received a young man affected with complete retention of urine. He had been labouring under gonorrhœa, attended with much ardor urinæ and chordee. For these symptoms he took cubebs. The discharge diminished rapidly, but retention of urine came on. Ineffectual attempts were made by the surgeon who attended him to introduce a catheter. At the time of his admission he could pass no water, had great spasm and pain at the neck of the bladder and some tenderness on pressure in the perineum. I passed a small silver catheter into the bladder, but pus gushed out before the urine. As it seemed evident that an abscess existed in the perineum, which had probably been opened by the instrument, it was desirable at once to obtain a free external opening for the matter, in order to deviate the risk of extravasation of urine. I therefore cut down on the perineum, in the direction of the tenderness; and, when the lancet was already up to its shoulder, there gushed nearly a tea-cupful of matter. The case terminated, as may be anticipated, in a fistula perinei, which was not cured when the patient left the hospital.—*Med.-Chir. Rev.*

All communications and books for review are to be addressed (post paid) to John Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 15. SATURDAY, MAY 7. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,
BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE VIII.

Disordered Conditions of the Secernent and Absorbing Organs.

Whatever may be the opinions to which experiments and observation conduct us, as to the precise nature and office of the lymphatic vessels—whether we attribute more of the absorbing power to the venous system than some are still reluctant to admit, or whether we abide by the old doctrine of lymphatic imbibition exclusively, certain it is that disordered conditions often obtain, both in the depositing and taking up vessels, which form maladies of a somewhat peculiar or distinctive character; and I am now to go briefly through the pathology of the principal affections pertaining to these parts.

I have already intimated that a balance of power must necessarily be kept up between excretion or exhalation and absorption, and that the source of those derangements to which our attention is now to be called is mainly the failure of this adjustment.

Dr. Cullen gives the name of the class in which he arranges these disturbances, cachexia, from κακος—*bad*; but, beside that this is an exceedingly indefinite term, it goes too much in the way of presuming on the correctness of the humoral pathology, and upon our supposed power of altering, in a direct way, the humours of the body; whereas, as I have repeatedly told you, our agents are almost entirely limited to altering *action*, and we cannot, in the direct way which the humoral doctrines suppose, do any thing precisely or satisfactorily, in chemically changing the condition of the secreted and circulating fluids.

The orders in this class are, *marcores*, or emaciation; *intumescentiæ*, or swellings; and *impetigines*, or those disorders of a bad habit, which principally manifest themselves in the skin or superficies of the body. Now, it is important for my purpose to point out to you that Cullen distinguishes the marcores by two designations, viz. the atrophic and tabid; the latter being without that hectic accompaniment by which the other is attended, as is "the shadow of a shade." The atrophic wasting ought, indeed, upon the principles of the nomenclature and classification, to have been transferred to the neuroses, since in those the assimilating functions seem only secondarily at fault—the primary lesion of function appearing to be in the nerves; while the truly tabid affections originate in some inherent or essential error in the secernent or assimilating organs; and, in these last, some indications of a *hectic* disposition may for the most part be discerned, as well as some intimations that a lymphatic or scrofulous diathesis is present.

What is scrofula? What is hectic? In reply to these questions, we may say that some individuals are so constituted, principally in reference to the lymphatics, that any cause which deranges, fastens with more facility upon this part of the organization (the lymphatic) than any other; and these are they who, in common parlance, are called scrofulous subjects; these are they, moreover, in whom hectic fever is soonest established, so much so, that any attentive observer may be guided in his recognition of scrofulous tendency by the readiness which hectic manifests to start up, and accompany a disorder's march.

Fully marked hectic (I here again partly borrow from my own writings), is, indeed, for the most part, a signal that local disorganization of a serious nature has established itself in some *part* of the body; and it is so general a sign of the suppurative process, as to have led some to suppose its essence is constituted of reabsorbed pus—that is, pus taken up *as* pus into the blood-vessels; but it does certainly shew itself at times without any topical accompaniment, and does appear, in some way or other, to be

especially connected with the lymphatic and secerning systems. If two children be affected simultaneously with inflammation of the brain, from the same cause, and one of them has more of scrofula about him than the other, you will find a readier disposition in that one to have his little cheeks painted with the hectic colour, and all things more rapidly tending towards a certain *sort*, as well as grade of distemper.

Fill the stomachs of two other children with food, which, both in kind and quantity, shall make too large a demand upon the digestive and assimilating powers; in the one case common pyrexial disturbance will be produced (the bilious remittent or infantile fevers of authors will be set up), while, in the other, you will perceive a knotted protuberant abdomen, a hectic circle of red on the face, emaciated limbs, in fact, tabes mesenterica—and why? Because in this last case the mesenteric glands, as part and parcel of the lymphatic or lacteal system, are constitutionally obnoxious to ready derangement, and, because there is not the proper secerning and absorbing balance preserved in any of the organs that are subservient to the constitution and transmission of good chyle; there may not be merely a deficient quantity of the biliary and pancreatic secretions, but such diminution may be accompanied by a deficient property in these secretions; besides, from the inactivity of the absorbents, the watery part of the secretions referred to are not readily reabsorbed, and thus the duodenum receives them in too dilute a state for functional demands. The emaciation, then, and the debility of this child, are not induced in the same way as the weakness and want of flesh in the other. In the subjects of remittent fever, the nerves and blood-vessels appear to have been more engaged with the disease, and the altogether of morbid process has been of a different nature.

In all this, of course, we are not to expect decided marks of separation between one kind of temperament, and one species of disorder and another; for complication, and mixture, and interchange, are abundantly characteristic of every thing which has to do with the animal economy; there is this want of precision naturally, but the habits and refinements of society greatly add to it.

The scrofulous temperament is usually marked by a fine transparent skin, a full blue eye, and an extraordinary whiteness of the teeth; but Dr. Beddoes has very properly remarked, that dark hair and dark eyes are very often intimately associated with the scrofulous tendency, and that when that is the case, the constitutional predisposition to disorder is perhaps more formidable, as being more deeply fixed. Pulmonary consumption, to which I shall afterwards have to ask your attention, fastens itself with remarkable facility on the scrofulous; and in these subjects the lymphatic glands are often disordered, especially in those parts where, as I have before stated, they are found in clusters, and when, from a condition merely of irritation, they come to inflame and suppurate, they pour out pus of a curdy, cheesy kind, which pus was considered by John Hunter as the coagulable lymph of the blood deprived of its serum. These ulcers are exceedingly indolent at times, and difficult to heal—they often continue open for months, with irregular edges—and when bone is the subject of this sort of inflammation and suppuration, much and extensive mischief will often be engendered, which may last for years, and produce exfoliations, and bony separations and irregular deposits of ossific matter, and periosteal denudations, that come to constitute some of the most formidable, and protracted and puzzling cases that are placed on the records of pathological surgery.

When syphilitic and other specific irritations fasten upon the scrofulous diathesis, they are often, from this circumstance, made much more virulent in character, and difficult in treatment.

Of hectic fever I will only further say, on the present occasion, that when it is fully established it is very different from other derangements to which the cognomen of fever, by common consent, is given. In the first place, it is without those peculiarly depressing conditions of the nervous power, which will afterwards be shewn as a marked characteristic of fever generally; on the contrary, there is often a conspicuous alertness, which is in mournful contrast with the wearing and wasting of flesh and strength that hectic disorders produce. It is, however, a remittent fever (if fever it must be called); the exacerbations are towards noon and about six in the afternoon, usually the sweats break out early in the afternoon—they are profuse, but are principally confined to the upper parts of the body, as the head, the breast, and the shoulders.

Let the student recollect these last particulars, marking the difference between hectic and ordinary fever, both because it is of itself important to keep in recollection, and because it sometimes becomes the subject of inquiry in medical examinations. I recollect, when a student at Edinburgh, seeing a pamphlet by a rejected candidate, who stated that the only two questions he failed in answering, during a long probationary hour, were, "How is the tartrate of antimony composed?" and "What part of the body do the sweats of hectic break out?" "To these last questions I replied *nescio*," he says, "and thus ended my examination."

Of Swellings (intumescentiæ), and first of dropsical enlargements.

It is only on the general pathology of dropsy, as a lymphatic ailment, that I am

now to speak. Dropsy of the head, of the chest, of the abdomen, of the appendages to the womb, of the skin, &c., are to be dwelt on in another division of our course.

It is admitted by all, that there must be at least a relative disproportion between the exhalents and absorbents to constitute the disorder, although opinion varies in reference to the precise principles upon which this disproportion is established. The idea of debility was generally admitted in the school of Cullen—that is, a feeble condition of the absorbing agency—so that the deposit from the exhalent arteries becoming in this way too much for the absorbents to take up, accumulation is the result. More recently, however, an undue accumulation of fluid, either in the cellular membrane or in any of the body's cavities, has been looked upon rather as the result of morbidly increased action—of inflammation, in fact, than of torpor or deficient excitement. In some maladies that go under the general name of dropsy, this assumed action has been most manifestly present, as in acute hydrocephalus, in hydrothorax succeeding to pulmonary inflammation, and in ascites to peritoneal affection; but it may be questioned whether we have not too precipitately changed sides with regard to hydropic pathology, and now think too much of action, as before we thought too much of torpor.

Dropsy, I have elsewhere said, appears fairly traceable to at least three sources. When you have sluggish circulation connected with, and indeed caused by venous plethora, the overladen vessels disgorge themselves by means of their contiguous exhalents, in a sort of percolating way, or, at least, without the induction of any morbid process that can justly be considered analogous to inflammation. It is this kind of dropsy that gradually supervenes upon obstructed viscera, such an obstruction causing an impediment to a free flow of blood, and occasioning a remora among contiguous vessels. In this case, neither the exhalents nor absorbents are properly at fault, nor is there any inflammatory irritation causing the exudation.

Serous or watery accumulations, at other times, take place when everything about the patient indicates torpor—and torpor of a marked and peculiar kind—where, as it has been happily expressed by Dr. Bree, the last guardians of the safety of the animal economy (the lymphatics) give way and refuse to do their wonted work. In this case it would appear we have dropsy from direct debility.

Lastly, some kinds of inflammation more open or more masked (for inflammation occasionally exists unrecognized by the practitioner), so implicate the arteries which terminate by open mouths on surfaces, that they are obliged, in their own defence, as it were, to throw out an extraordinary quantity of serous effusion, and occasionally something more than the mere watery parts of the blood are sent through them—or rather something different even from their usual secretion, is forced out by the hurry and commotion of the process. Even here, however, the tendency to lymphatic exudation is partly constitutional; and it will be found that, from first to last, there is more disposition to hectic production than is the case in ordinary irritation.

Whether another source of dropsy may be put down, viz. actual tenuity of blood, brought on by hæmorrhage, according to the expression of Dr. Cullen, seems, to say the least, problematical. The blood certainly may be, and often is, deficient in its due proportions of solid and fluid parts, but whether this state of things in itself could lead to serous effusion is doubtful, and I would infer that both the theory of weakness and that of inflammatory excitation, have been carried too far, or rather reasoned on too exclusively, for the purpose of explaining the effect in question—namely, undue accumulation of fluids in particular parts, causing, or rather constituting dropsy in these parts.

Of the intumescentiæ or swellings, that are not dropsical, the rationale is not seldom full of obscurity. When a permanent enlargement takes place of the abdomen, for instance, and we find such enlargement to be constituted by a deposit of fluid in the peritoneal cavity, we consider ourselves in possession of some precise knowledge, in reference to the manner in which it has been engendered; at any rate, we are assured that the swelling is occasioned by exhalation being too much, or absorption too little; but a tense protuberant abdomen shall often develop itself, which seems to have some relation to the secretion of air, in a manner that it is very difficult indeed to trace—and these swellings shall appear and disappear with a rapidity and in a manner that are also difficult to explain. That the emphysematous, and tympanitic, and physconic enlargements are, however, in some mode or sort dependent upon a depraved action in the absorbsent and secernent functions, may be considered as pretty certain, and it is, therefore, that I have made this slight allusion to them at the present time.

Rickets, and general deformities of a rickety kind, are disorders of that system of vessels, the morbid state of which are now under notice. The irregular bony formation, the large head, the flattened ribs, *tumid abdomen*, and general emaciation that mark these disordered conditions, are not nearly so formidable as they used to be; part of this immunity is, we believe, attributable to the improvement which has lately obtained in the nursing, the dieting, and the manage-

ment of children, who are not now, as they formerly were, swathed and crammed, and kept away from pure air, and calomelized, and drugged into little miserable and artificial existences, but have the free enjoyment of their beautiful limbs, are permitted to roll and run about, and are daily sent into nature's grand storehouse of therapeutics—fresh air. All these beneficial changes, we are proud to say, have been effected by the reformed state of medical science, aided by the growing good sense and intelligence, even of the nursery, and yet we are tauntingly told, even by ecclesiastics, whose observation ought to teach them better, that there is no improvement in medicine. The charge of scepticism has been pretty largely brought against medical professors—I mean scepticism in higher matters than even medicine itself—but the charge (all unfounded, as I believe it to be) comes with an especially bad grace from those individuals who shut their eyes and ears against all medical pretension, and swallow, in a wholesale way, pills and potions, against the poisonous effects of which they can have no guarantee, either from their own knowledge or the intellect and principle of their medicine-mongers. Yes—yes—medicine has improved, and will improve, as we advance in intelligence, and free ourselves from the shackles of system, and the trammels of science—falsely so called.

To rickety deformity, as combined with cretinism, I shall afterwards desire your attention, when treating on the peculiarities of the substance called thyroid gland. I may here only say, that the affection named mollities ossium is an affection demonstrably of the absorbing or exhaling vessels.

It is a curious fact, that in some conditions of the body, the bony matter from the blood, instead of being deposited where it is wanted, is carried to some of the softer parts, and there thrown out. In what is named the gouty diathesis, for example, the arteries and parts of the heart become changed from membranous into bony structure, and give rise to irregularities of the circulation, hæmorrhages, apoplexy, and other formidable ailments. But occasionally we find the bones so deprived, from some inexplicable tendency in the frame, of supply of calcareous phosphate, as that the individual becomes reduced almost entirely to mere membrane, having almost no bone for support, and no power to support what still remains. I have seen, in Mr. Taunton's museum, in Hatton Garden, the whole bones, extracted after death, from one of these miserable semi-vital existences, and enclosed in a very small box. Then, again, especially in old age, we have the reverse disorder of brittle joints and parts, in consequence of those parts being wholly bony, which ought to be constituted of membranous and ligamentous substance. More or less of this rigidity and brittleness are accompaniments of old age, yet it occasionally takes place much in advance of years and other circumstances. Dr. Mason Good relates a case of fractured knee-joints, from a female kneeling rather too precipitately at church; and many somewhat similar accidents have from time to time presented themselves: all these being so many instances of disproportion between the exhaling and absorbing faculties.

Cancer is put down by Cullen in the class cachexia; but this malady is of too specific a kind to detain us long at our present meeting. I will just state, that here the secretory organs seem those mainly affected; and its establishment at a particular period of life, or rather, its being more usually developed at the time of life which is usually characterized in females by the term *change*, proves its occasional connection with the alteration that parts and functions undergo at this juncture. Let me here, again, borrow a sentence or two from my own writings, illustrative of what I would here desire to impress.

Dr. Heberden, I have said, observes—and it is a curious as well as important fact, "that the lymphatic glands of the neck, groin, axilla, and mesentery, are more especially the subjects, previously to the period of puberty, of disordered action; at the time of puberty the pulmonary organs are principally obnoxious to disease, and in more advanced life, the uterus and breasts in females, and the prostate and other excretory glands in males, are the seats of morbid affection."

These facts are susceptible of something like the following explication. We have already seen that the evolution of organs is different at different periods of life. In infancy, and previously to the development of sexual peculiarities, those lymphatics and absorbents are mainly called into action which are concerned more properly and especially with the growth of parts. To the head, the mesentery, and the extremities, is the blood now directed in a greater proportion; the deposition forming bone proceeds at this period with rapidity. Absorption is necessarily required and effected in the same ratio; and, in these constitutions which are characterized by occasional laxity in the exhalent and absorbent vessels, disease will more readily and rapidly appear in those parts that are now the subjects of so much excitation.

The lungs, at the age of puberty, as is indicated by the alteration of the voice and other characteristics, undergo a very momentous change. The osseous portions of the extremities being now nearly complete, growth and changes in these parts are produced more tardily; the principal impetus of the blood is directed into other channels, new determinations (as it is technically expressed) arise, and constitutional excitement

is directed from the localities above named to the lungs. Hence the very frequent occurrence of consumption at the time when the constitution is about to assume fully its sexual character; and hence the more usual appearance of a tendency to consumptive disorganization in constitutions that are termed scrofulous.

Individuals in after life with such temperament are obnoxious to diseases of the organs above mentioned, in consequence of all weak parts being especially susceptible to organic derangements, by the abstraction of their accustomed stimuli. The breasts are no longer excited to the secretion of milk; the offices of the prostate gland and seminal vessels cease; the uterus does not undergo itsformer stimulus; and these organs, always more or less liable to disordered being, with difficulty resume their original state of inactivity, without falling into actual and positive disease.

Before I quit these very slender allusions to the system of vessels now adverted to in their morbid bearings, I may notice the remarkable fact of *mutation*, or of sudden transference of disordered action—probably disordered, or rather disordering, matter from one locality to another—and that in a way which it is difficult to conceive of as occurring, independently of the agency of the lymphatics or absorbents.

Who that has been much in practice may not have seen dropsies of the chest changed suddenly—actually transformed—into brain disorders,the cessation of the one and the induction of the other being in immediate succession? Hydrocephalus again, as I shall hereafter state, has been known to succumb under a large secretion from the kidneys, and consequent flow of urine. What, again, has been named in the schools—a name, the legitimacy of which is now scarcely recognized—serous apoplexy, will decline, and dropsy of the skin or of the abdomen follow.

Now, in some of these instances, the new secretion seems a continuation, as it were, of the first. I have distinctly in my recollection a woman's case near Smithfield: this woman had several successive but somewhat anomalous swellings in and near the groins; these subsided, and, simultaneously with their subsidence, a purulent matter came from the bladder, mixed, but not united, with the common urinary secretion. Nearly the same thing I have seen in cases where the ovaria have seemed to be the seat of the original ailment, and where the kidney discharge consequent upon the absorption of the ovarian fluid has not been proper, unmixed urine. But in many, and in most instances, the vicarious flow has seemed to be merely an increased secretion from the organs pouring it out. In some instances, indeed, of these metastases, it should seem that there is rather a transference of *action* than matter, as when hæmorrhoids relieve headach, the inflammation of a gouty toe becomes a spasm or inflammation of the stomach, the brain, or the heart; when erythema of the skin removes a depression of spirits — when the same dermoid affection takes place upon the temporary cure of internal membraneous disorders —or when suddenly hearing disastrous news produces an offensive smell of the breath.

In the last adduced example, indeed, a sort of sympathetic nervous excitation is implied; but still, even in this we may suppose a lymphatic action going on in some obscure manner, but with sufficient precision to authorize the interference of the organs destined for conveying and in a particular manner transmuting diseases.

Dr. Mead, in his beautifully written book, entitled "*Monita et Precepta Medica*," records a curious case of a melancholic, who, fancying he was dead, ordered the passing bell to be tolled (it was in catholic times). The man who commenced the ceremony of ringing did it in so bungling a manner, that the dead person jumped out of bed, traversed the street, and rung his own pass. He returned to bed in a state of angry excitation, *broke out into a profuse perspiration*, which perspiration carried off his corporeo-mental complaint. Here must have been some action set up through the whole system of transpiring exuders, which conveyed his malady to the winds of heaven; and we are almost compelled by such occurrences, whether more or less marked and extraordinary, at once to acknowledge the power of the capillary secretions and absorptions, and to admit that the pathology, or doctrine of humours, is not so absolutely visionary as modern philosophy is inclined to consider it.

There is another most afflicting anecdote related by Dr Mead in the same work, which proves the mutating power of certain mental influences—and this carried even up to the extent of actually arresting disorganizing processes. With the reading of this anecdote I shall conclude the lecture of the present day, reserving what I have further to advance on the peculiar susceptibility of the lymphatics to particular excitation, for the next meeting, when I intend to commence my general account of the deranged condition and tendencies in the nerves. So intimately connected, indeed, are all these several parts with one another, the blood-vessels with the lymphatics, and the nerves with both, that to dwell upon the relative and complicatedaffections and ailments of the one, is by consequence almost to include the other.

"A young lady," says Dr. Mead, "about eighteen years of age, was attacked with a spitting of blood and cough, which, although active treatment was pursued, was soon succeeded by hectic fever, night perspirations, and every symptom indicative of a rapid and menacing, a confirmed consumption. Death stared us frightfully in the face. The anti-

cipation of so sudden and hitherto unsuspected event, struck the patient with horror in relation to futurity; which, indeed, was mainly occasioned by the frightful picture drawn by her spiritual counsellor, as to the possibilities of her forthcoming condition: the consequence was a state of furious mania. In the mean time her bodily condition began to amend; the fever and sweats subsided; the spitting was arrested; and every thing connected with the pulmonary manifestation promised a thorough recovery. From a condition of high mental excitation she now fell into melancholy; and this was in the course of three months succeeded by calmness and mental composure. But alas! (mark this strong feature of the case), with the return of her reason, her bodily complaints likewise returned, and this fine young creature very shortly died of actual consumption of the lungs. Postquam tres menses"—(I must conclude my narrative by using the masterly and vigorous style of the writer)—"fere sunt elapsi, febre hectica cum *pulmonis exuberatione reversa* tabe confecta periit melifre fato, ut visa est, digna puella."

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XIV.

Gynæco-Physiology—Puberty.

We have now to describe the functions of the sexual organs of human females, or the uses of the organs peculiar to them. The sexual functions commence at puberty and are performed until the arrival of senescence. The generative function is dormant in infancy, childhood, and ceases in old age. It is announced in both sexes by a number of changes, which have the most powerful influence on their physical, moral, and intellectual states.

It commences at puberty, and continues to senescence, during that stage of life when man is most vigorous and best able to educate, protect, and support his offspring. It produces the most powerful and remarkable influences on the functions of the mind and body. The description of the changes which operate on young persons, when they are endowed with the prerogative of reproduction, is a subject the most extensive and difficult to treat—changes not only in the sexual organs, but in the entire economy, and especially in the intellectual faculties. We have to notice the vivid sentiment of love, and that train of sweet illusions, sensations, and thoughts which confound the human mind. "We must describe the history of this age," says M. Buffon, "with great circumspection, so as not to excite in the imagination, other than philosophical ideas." We must treat it in the pure and unsophisticated state of nature, that is to say, physiologically and morally.

The following description of puberty is translated from my thesis on Man and Varieties of the Human Species, and followed the History of Infancy and Childhood. "Next arises puberty, which is justly considered, that which is vital of life, an effulgent Aurora, the season of pleasure. Then a sudden increase of the whole body takes place, sometimes in a wonderful manner; the voice becomes hoarser in males, the pubes, axillæ, face, and whole body are covered with a whitish down. The genital organs, which were pre-

viously small and useless, increase with the rest of the body, and, being much augmented, secrete a prolific semen, by whose stimulus the youth is incited to the enjoyment of the agreeable gifts of Venus. About the same age at which boys are puberous, girls become nubile; the genital organs are evolved, the pubes appear, and the breasts are developed; a new loveliness appears on the countenance, a new elegance of the whole figure; if the individual was previously delicate, she often and suddenly enjoys good health; a secretion somewhat similar to the appearance of blood is effused every month from the uterus; and this organ is rendered fit for the nourishment of the offspring. Hence by the laws of nature the sexes are impelled with a desire to be united, whence offspring similar to themselves is propagated."*

At this age nature directs all her powers of development and vitality to those organs which she has destined for the procreation of new beings. All the other functions of the body are sometimes diminished; digestion, respiration, circulation, the intellectual faculties, the senses, the motions—in a word, nature seems to suspend the growth and functions of all other parts to give a rapid development to those intended for the perpetuation of a new life.

There is a determination of blood to the sexual organs, these rapidly increase in size, secrete fluids highly excitant, which sympathetically affect all parts of the body, and are intended to regenerate the species.

When puberty is established, an indescribable commotion often agitates the individuals of both sexes; all their functions may become deranged; the digestion is bad, the action of the heart and arteries is irregular, often accompanied by palpitations; the respiration is laborious; they often find comfort only in solitude; their desires and affections are altered; those whom they heretofore considered dearest are often looked on as objects of indifference, and they now experience feelings to which they were hitherto strangers. The genital organs continue to develop very rapidly; their secretions increase and aggravate the indefinable commotion in the whole economy. The prolific fluids of both sexes are elaborated, and fitted for the object which nature intended. "There results a superabundance of life, which endeavours to communicate and establish itself: there is a new and imperious want developed, which compels the sexes to approach each other." (Rousel, Systeme Physique et Moral de la Femme). The influence of this want on the moral state of mankind is thus correctly described, by the celebrated Cabanis: "The new want produces in the young man a mixture of audacity and timidity; of audacity, because he knows that all his organs are animated with an unknown vigour; of timidity, because the nature of his desires astonish him, as defiance to them disconcerts him. In the young girl, this want gives rise to a sentiment of modesty or virgin shame, of which she was heretofore ignorant, which may be regarded as the hidden expression of her desires, or the involuntary signs of her secret impressions." (Rapport du Physique et Moral de l'Homme). A complete revolution is effected in the human economy at the age of puberty; the bones harden, the chest dilates, the voice changes, the constitution becomes strong and vigorous, health is completely established, and many diseases, such as scrofula, rickets, St. Vitus's dance, hysteria, chlorosis, &c. disappear; though sometimes diseases supervene at this period. In common with all parts of the body, the brain becomes developed, the intellectual functions are augmented, man is susceptible of the highest conceptions of the mind, the principles of life superabound in his

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* "De Genere Harmano ejusque varietatibus."

constitution, and he vigorously performs all the noble pursuits assigned him by nature.

Woman, on the contrary, delicate and tender, always preserves some of the infantine constitution. The texture of her organs do not lose all their original softness or assume the strength of those of her companion; her eyes become brilliant and expressive, and all the graces and charms of youth illumine her person. Her bosom throbs with tender inquietudes, her character loses its infantile vivacity, her manner and tastes become analogous to those of a perfectly full grown woman, her passions are stronger and more constant, her moral and physical sensibility are greater, and she feels a sentiment hitherto unknown to her—the impulse of love—the desire of marriage.

Amidst this universal disorder of the economy, the excitement of the reproductive organs predominates, and causes the extraordinary and incomprehensible phenomena already described. Nature instinctively points out her rights. Every effort is now made by parents to suppress voluptuous ideas; but the secret thought of amorous pleasure cannot be extinguished. Nevertheless, an enjoyment purely physical is not the object of research; the heart opens to the most tender sentiments, and guides the first movements of the sexes. Until this time they were actuated either by self-love, parental affection, or esteem for the youth of their own sexes. But now paternal tenderness and mere affection are insufficient for their happiness; their well-being exists in another individual, and they think that they cannot enjoy real existence but in the intimate union of their body, soul, and heart, with one of an opposite sex to their own. They meet, their tastes, ages and sentiments are similar; and now commences the scene of their innocent amours. What delightful reflections are offered to the study of a moral and philosophic mind by the innocent amours of two young persons, who know no other motives for their actions than the pure inspirations of nature and the heart! The most strict chastity presides at their first interviews. A word, a glance, a whisper, the pressure of a trembling hand, are to these the enjoyments of happiness. They do not approach each other but with a respectful fear; they dissemble towards each other the nature of the sentiments which agitate them; they look "unutterable things."

In proportion as their visits are more frequent, and their physical love increased, which it is by the excitement caused by their meetings, their interviews are more numerous, their conversations become longer, more delicate, more intimate, a reciprocal and exclusive confidence is established between them, the trembling hand reposes longer in that of its admirer, they embrace, their hearts palpitate, a secret fire consumes them, and they finally vow to taste legitimate pleasure, after swearing eternal fidelity to each other before the altar.

This, however, is the age at which the youth of both sexes should act in strict accordance with the precepts of religion and morals, as errors committed now are irretrieveable. The tender sex, which are the objects of the most ardent fire of zealous adoration, and who burn themselves with the same flame, must never yield to the slightest freedom which is contrary to modesty and honour. They must not countenance for a moment obtrusive familiarity, much less the slightest immodest advances, or their ruin and degradation are inevitable. The usual result of impertinent familiarity, of illicit or anticipated love, is disgust, desertion, and indelible disgrace. A virtuous and firm resolution is the only safeguard, and a fixed determination not to remain alone or beyond the hearing of others with him who has captivated the heart. The passion of love is as inherent in mankind as the function of digestion, respiration, and the mind, and must be gratified as

well as other wants. It is less essential to individual existence than other functions; but when it exists, as it does in almost all persons, it must be gratified; and human intervention or laws cannot restrain or extinguish it, except in a few instances.

The secretion of the sexual fluids is intended by nature for the conservation of the species. About the fourteenth or fifteenth year, in temperate climates, the sexual organs of boys become developed, and a fluid is secreted by the testicles, termed seminal or spermatic, which is destined for the perpetuation of the species. This fluid accumulates in receptacles provided for it (*vesiculæ seminales*), and not only excites the sexual organs, but every part of the body. The functions of the mind are improved, the digestion is more vigorous, the circulation of blood is more rapid to every organ, which is abundantly nourished, and performs its function with much more energy than before this period of life. Hence, we observe the body developes with rapidity, and the individual in a short time loses the characteristics of boyhood, and acquires those of adolescence.

Though the sexual organs rapidly develop from the fourteenth to the twentieth year, yet they do not acquire their complete growth or functions before the twenty-fifth, some not until the thirtieth year; and this is the age most proper for marriage.

The body is not fully developed before the twenty-fifth year of age; the spermatic fluid is less abundant and fitted for reproduction; and persons under this age invariably beget delicate sickly infants, which seldom arrive at maturity. Sexual indulgence before the age of twenty-one, according to our laws, but before the age of twenty-five, according to the laws of nature, not only retards the development of the genital organs, but of the whole body, impairs the strength, injures the constitution, and shortens life. Ample evidence in proof of the validity of this position is adduced in my works on Population, Marriage, &c.; and in my Lectures on the Physical Education and Diseases of Infants from Birth to Puberty. The period of puberty is accelerated or retarded by climate, occupation, aliment, situation, and morals. It occurs so early as the ninth or tenth year in warm countries; and so late as the eighteenth or twentieth in northern regions. It is observed very early in Asia and Africa, and very late in Denmark, Russia, Norway, Iceland, &c. Boys become puberous so early as the eleventh year in the south of Europe, in Italy, and even in Spain and Portugual; about the thirteenth or fourteenth year in France; and the fourteenth or fifteenth in this country. Examples of precocious puberty so early as the fifth year, in this climate, are recorded in my Manual of Obstetricy. It occurs earlier in large towns and cities than in rural districts, as the imagination is more excited by voluptuousness, books, prints, theatres, public amusements, the erotic and seductive discourses of the corrupters of youth, &c., than in the country. It has also been observed that the sooner puberty appears the sooner old age follows; and this general rule equally applies to the other sex. Common observation confirms the truth of this statement.

Puberty may be advanced or arrested by an abundance or scarcity of food, by heat or cold, or by season or climate, by residence in a city or the country, and by an easy or laborious life. According to Aristotle, "puberty ensures health or deranges it, the body becomes thin or full, delicate children become robust, or strong children become delicate. Many diseases disappear, others are developed." (*Hist. Animalium.*)

It has long been observed in all climates, that puberty appears earlier in girls than in the male sex. Buffon explains the reason of the difference in the following manner: "That man being naturally stronger and more robust than woman, nature ought necessarily to employ more time in his complete

development." It will also appear, hereafter, that the former loses the faculty of reproduction sooner than the other. The external influences, such as climate, aliment, occupation and morals, with peculiarities of constitution, accelerate or retard puberty in girls as well as boys.

The establishment of puberty in woman renders her capable of performing her part in the perpetuation of the species; and this faculty is now to be described. I must premise, that neither sex can morally nor physically become a parent at puberty, on account of immature development of both mind and body, for satisfactory reasons assigned by theologians, philosophers, legislators, and physicians. I have adduced these reasons in the two works of mine already mentioned.

A LECTURE
ON
PHYSICAL EDUCATION,
BY M. L. FRECHET.

Lately delivered at the Philosophical Institution of Bath and Bristol.

(*Concluded from p.* 434).

I SHALL now pass to consider the predisposition to consumption and scrofula, which are very prevalent, and which do not require less attention than those diseases I have already mentioned. So many able writers have dwelt on this subject, that there remains very little for me to observe; the causes having been fully explained, it would be presumption in me to go into their details; I shall therefore be brief in my remarks. Consumption is often hereditary in young persons, in others it is caused by the want of proper care, nourishment, or by long confinement, but the causes are immaterial; we have only to lament the existing disease, for it is equally bad in either case. Its diagnosis is easily observed in a delicate weak person with a pale face, glazed eyes, and difficult respiration; in that state there are well-grounded fears of a predisposition of the lungs to tubercles. You know that the seat of the disease is in the lungs, which in this temperament are compressed by a narrow and flat chest. This confinement prevents a full expansion of the lungs, which are thus hindered from receiving a sufficient quantity of air, consequently the blood is imperfectly supplied with oxygen gas, which is the chief support of life, and a deterioration of all the organs, and of the lungs in particular, ensues. Common sense here tells us, that by developing the pectoral muscles and expanding the chest, we shall give the requisite freedom to the organs of respiration, and thus enable them to perform their functions without difficulty. This, however, is attained more successfully at an early period of life, when the growth is in our favour. Before, however, I give you my views on the subject, I will again refer to Dr. Clarke.

Dr. Autenrieth, of Tubingen, according to Sir Alexander Critchton, first recommended the practice of improving the narrow and contracted chest by deep and frequent inspirations; he advised his patients to place their hands upon some solid support, and to exercise themselves by taking repeated deep inspirations, but cautioned them against carrying this so far as to produce pain.

Dr. Clarke says—"I have been in the habit of recommending the full expansion of the chest, desiring young persons, while standing, to throw the arms and shoulders back, and while in this position to inhale slowly as much air as they can; when it can be done in open air it is most desirable.

"The use of dumb bells and similar modes of exercising the arms are also eminently useful in obtaining the important object we have in view—the full development of the chest and upper extremities."

Dr. Clarke further says—"Of the various modes of exercising the muscles of the trunk and upper extremities, the method which is employed in the army appears to me the best; it is called the club exercise; the clubs vary in weight according to the strength of the individual who is to use them: the person standing upright with a club in each hand, passes them alternately over the head and round the shoulders in various ways, so as to call into successive or combined action the whole muscles of the arms and trunk. This mode of exercise is admirably well suited for an in-door exercise to young persons of both sexes; it is especially useful to girls who, without some artificial exercises of this kind, rarely have the muscles of the chest and back sufficiently called into action; the daily use of these clubs would contribute more to the proper development of the chest, and to give a straight back and good figure, than all the lessons of the dancing master."

Any one who has been in the Gymnasium and has seen the pupils go through their exercises, will have remarked, that they are

all practised in a regular method; the variation of preliminary exercises is still further complicated; but if Dr. Clarke confines himself to these exercises, I must be excused telling him he will not derive from them the benefit he anticipates; they are only preparatory ones to those by which you will be able to develop in a sure and safe way the pectoral muscles; the intercostal muscles require more exertion than can be derived from the clubs; for these assertions I would appeal to the pupils who have been under my care, if they would have made any considerable progress by confining themselves to these. It is of no use to stop half way; if you do not give great elasticity to the intercostal muscles and sternum, so that they may easily expand on inspiration, and thereby receive the sufficient quantity of air, we do very little. I do not exaggerate when I say, that after an accurate admeasurement of the chest of my pupils most of them had increased between four and six inches during six months' practice.

The exercises would be perhaps objected to by some, through fear of danger; my answer is, that if they be properly conducted there is none. I never yet met with any accident during eight years of experience. These fears exist only in the minds of persons who have not a correct idea of them. It is the duty of the professor to be on his guard, and the pupil who will submit to his advice will be secure from accident.

They have been further objected to by a physician of Bristol, on account of their quickening the pulse. Every one has a right to his own opinion, but when it is given to the public it becomes public property, so in adverting to it I hope I shall not be thought trespassing. The gentleman I think must have expressed his opinion without due reflection, or we have a right to expect from him some plausible reason why the raising of the pulse by gymnastic exercises would be injurious, for upon the same principle he ought to object to the quickening of the pulse produced by the most ordinary exertion, since it must be known to every one, that no muscular effort whatever can be made without a greater or less elevation of the pulse.

If, however, such doctrines are entertained by individuals, I confidently appeal to the faculty in general for their verdict. No one would be able to move without danger. The mechanic and the labourer would become the victims of their daily avocations; but particularly it is well known, that those who use regular exercises have a strong frame and enjoy good health. Had he objected to over-exertion, which would procure too rapid a rise of the pulse, I would most readily agree with him, for every one knows that every thing, however excellent in itself, ought to be used with moderation, and if carried to excess would be hurtful; we must moreover remind our hearers, that too slow a circulation is quite as prejudicial to health as an unnaturally accelerated one.

Dr. Clarke having adverted to the exercises of the dancing master, I shall notice them, as they make part of physical education. Every one who frequents the circles of good society ought to know how to dance, as it is useful in developing the extremities and trunk. A young person in good health may practise it with advantage, but it is not the case with persons predisposed to consumption, for the following reason:—No exercises ought to be directed upon the lungs before the chest is properly expanded. By dancing great exertion is made upon them, so that if the sternum do not expand properly, you may be sure the effect will be detrimental to the health.

Young ladies are always tied up in corsets, which prevents the expansion of the chest; moreover, the practice of dancing serves as an excuse for late hours, and in over-heated apartments, which will produce too profuse a perspiration in a delicate person, and consequently prove injurious. Dancing, to be useful, ought to be performed at suitable hours, and in the open air whenever the weather will permit.

I shall now advert to the scrofulous temperament, and when I say that no such cases can be successfully treated without exercises, I do not fear contradiction, for it is quite evident when that great debility which usually attends scrofula exists, it must arise from a deterioration of the principal organs, and that a want of due exercises, as already explained, is the most common cause of such derangement; thus if we examine the scrofulous person, we shall soon discover how inactive are the muscles. This is dependent on their impoverished nutrition, for the stimulus of contraction and extension being diminished, the flow of the fluids to them no longer takes place, and thus a diminished circulation brings on a diminished nutrition, and vice versâ.

The following extract is from an excellent Treatise upon Scrofula, by Mr. Richard Carmichael, of Dublin:—"I have the strongest evidence for believing that in the upper classes of society, these formidable complaints are, in a great majority of instances, indueed by the folly of attending almost exclusively in the education of youth to the improvement of the mental, at the expense of the muscular powers. There cannot be a doubt that the present mode of education is calculated to debilitate the frame from the long confinement children are obliged to endure in crowded and badly-ventilated rooms; in fact, they should never be confined to their studies more than two hours at a time; a longer period can scarcely be attended with any advantage to their progress in knowledge, as

their young minds are incapable of a more continued exertion; and if they are not allowed to indulge themselves frequently in recreation and play, they will only remain in mental as well as corporeal inaction. When preparing this work for the press, I examined the various public schools in this city, and universally found that scrofula prevailed amongst them, in proportion as the children were detained from exercise. The most striking instances were observed in Bethesda and in St. Thomas's parochial schools, where the children were remarkably well attended to in every particular, except in providing (from the indispensable want of play ground) for the means of due exercise, which is almost as necessary to their health and development as were food itself. But those who are born of delicate parents, and may be said from original delicacy of constitution to be disposed to scrofula, have actually no chance of enjoying health, except they form constitutions for themselves, by exercise proportioned to the enfeebled state of their muscular powers. In the public schools in question, it was found that *one-fourth* of their respective numbers were bodily affected with scrofula, although all were subject to the examination of medical men at the time of their admission, and would have been rejected if exhibiting any symptom of this or any other disease. How want of due exercise acts on the constitution in promoting these formidable complaints has been very fully considered. But I shall close these observations by subjoining my unqualified approbation of gymnastics, which if generally adopted, would render the rising generation remarkable for improvement in health, strength, and personal appearance, without sacrifice of any legitimate objects of mental education."

After the elaborate researches of Mr. Carmichael, I feel confident in announcing my views on the treatment of young persons predisposed to scrofula; at all events I shall retain them till those who are opposed to them shall have offered to the public more efficacious ones. Having adverted to the diseases most prevalent in young persons, I wish it to be understood by medical practitioners, that I have nothing to do but with the *hygienic* treatment of the two last subjects; I only wish to point out the indispensable utility of exercise to restore health and prevent diseases. I hope I shall merit their approbation in endeavouring to submit to the consideration of parents and guardians the absolute necessity of giving an early physical education to their children, as our happiness depends so much on the enjoyment of a sound constitution, which state of things ought to be established during the time of the development of the organs.

Rousseau tells us, the grand secret of education is, that the exercise of the body and that of the mind should be so continued as always to serve as a relaxation from each other. Having said so much upon young people, and fearing to be tedious, I will make a few remarks upon adult gentlemen engaged in sedentary pursuits. In many instances gentlemen entering the world have to select for themselves a profession, in which perhaps all their mental powers will be devoted to the desire of gaining honours, while others are placed in easy circumstances, and give themselves up entirely to comfort and luxury, imagining that nature has reserved them for these pleasures alone. Both cases, although diametrically opposed in appearance, in reality have the same tendency to pernicious effects.

In the first case (a laudable one) their mental exertion will surpass their muscular powers, which are much injured by the long inaction they are subjected to, whilst in the latter case these luxuries cannot be enjoyed with impunity, for they are generally carried too far, and thus we have a medium to preserve in whatever station of life we may be placed. He who devotes himself to studies ought always to have in his mind that his mental efforts depend in a great measure on the vigour of body; and the man of leisure ought not to forget that the happiness of his condition is no better secured if he abuse it. The object of both should be *mens sana in corpore sano.*

We daily witness instances of many of those gentlemen attaining by sedentary habits or good living a degree of *embonpoint* very unbecoming their age. You must not imagine that those corpulent persons enjoy very good health; they may do so for a time, but you may assure yourselves, that in a later period, and that not a distant one, they will be subject to many infirmities. One of those fat indolent *epicures* went to consult the celebrated Abernethy, complaining to him that he was losing his appetite, and could not enjoy his meals as he did formerly. After having looked upon him without giving any answer, and the patient requiring to know what he should do for his complaint, Abernethy, in his peculiar way, told him to live upon *sixpence* a day, and earn it!

Providence has given us a body, with a mechanism requiring to be put in frequent motion, in order that it may perform the functions for which it is intended; if we neglect this, we violate the laws of nature, and we shall have to blame ourselves for many of the evils which we may be subject to hereafter. The first duty of every one is to look after his own preservation, to seek for the best means to obtain it, and to arm himself against the innumerable dangers he is daily exposed to at every period of his life. To this end caution, presence of mind, activity, dexterity, and strength, will be his best safeguards. To acquire all these he has only to

put into action all the powers which nature has endowed him with. No one is capable of appreciating the power and strength he possesses till he has had the opportunity of developing them. We are sometimes astonished at persons exhibiting immense strength; we should be less so had we cultivated our own, for we should soon discover the chief difference to be, that in the one case it has been brought to perfection, whilst in the other it had seldom been tried.

Individuals who have spent the best part of their lives in indolent and insignificant amusements, will be rarely able to endure the rigour of a severe climate, whilst the robust go through it with the greatest facility, without experiencing any inconvenience—one of the greatest of all physical enjoyments. We are not to be compared in these particulars to the ancients, who made a general rule of bringing their physical strength to a degree of perfection by the olympic and other games, which made them so formidable. It appears therefore we have degenerated in proportion as luxury has spread itself amongst us; the only vestiges of the former state are to be seen in nations or persons where luxury has found access. The most healthy-looking are to be met with, not in towns, but in villages and in vallies, where, from the rising till setting sun, they are engaged in their daily vocations, and exempt from the pernicious effects of sedentary life.

Persons in cities, who cannot have the advantage of a country life, must get a substitute for them, and the apparatus of a gymnasium will furnish them amply. Most of them are invented by medical men on the continent, and after due examination have been approved by the most celebrated practitioners of England. The first person who introduced gymnastics into England was Captain Clias, of Berne, who came over at the request of the Duke of York, to establish gymnasia in the naval and military schools of Greenwich, Chelsea, Woolwich, and other places. It was a new thing in London; the first progress was carefully watched, and you may imagine a controversy soon began, for you know doctors differ. Abernethy, Cooper, Johnston, Hunter, and Macgregor gave their approbation; but the Lancet and some of its coadjutors disapproved of them.

Soon after, Mr. F. Shaw published a treatise upon the distortion of the spine, in which he pointed out their good effects. He says, "The gymnastic exercises practised by Mr. Clias, of Berne, seem to be well calculated to assist in developing and increasing the muscular strength of boys; his views concerning the effects of exercises appeared to me so just, that soon after his coming to this country I introduced him to Mr. Macgregor, Surgeon to the Royal Military Asylum, who immediately gave him an opportunity of shewing the good effect of his system; and has since, with great liberality, promoted and encouraged his efforts. How far the boys have been fitted in general health by exercise may be proved by the fact, that of several hundred who had performed them for four months, not one had, during that time, been in the hospital." Since then gymnasia have been established in every large town, especially in Ireland, where they are to be found in every school; and I have no doubt they will become more general in this place, when their utility is better appreciated.

In thus rapidly sketching the comparative effects of air and exercise on the one hand, and indolence and confinement on the other, much has been omitted and many details suppressed, which the brief limits of a single lecture forbid me to discuss. Those who are interested in the subject may consult the special researches of Vogel, Ramazzini, his commentator, Patissier, and lastly, the illustrious Tissot, who, to acquirements the most extensive and profound, displays a spirit of philanthropy which reflects credit upon human nature. In their admirable writings, the effects resulting from the simple privation of air and exercise are first carefully appreciated, and then their disastrous complications, with the habitual use of certain positions, the respiration of a close and vitiated atmosphere, a constitutional predisposition towards certain hereditary diseases, such as phthisis, scrofula, gout, hypochondriasis, the influence of peculiar temperaments, and so forth.

Nothing can be more complete than the description thus afforded of these affections: and it would be fortunate for humanity if the art of treating and palliating these complaints were equally well known and attended to; but it is here the deficiency becomes more apparent.

In the treatment of affections of a chronic character, marked by debility, laxity of the muscular fibre, and a torpid circulation, writers have mostly contented themselves with a vague and general recommendation of exercise, without, however, any clear exposition either of the class of diseases to which this remedy is applicable, the relative value of this or that exercise in various forms of diseases, and the mode of graduating it according to the strength and capabilities of the patient, and the state of each organ in particular. Walking or riding seem the exercises generally indicated, though even upon the comparative value of these, considerable difference of opinion prevails. A writer, fond of giving an aphoristic form to his expressions, assures us that "the road to health is a footpath." But Dr. Heberden, with greater precision, affirms that "walking is the best exercise to maintain a health that is robust, and riding to recover one that is impaired." And the great Frederick of Prussia was so

impressed with the importance of horse exercise, that he declared, "that upon considering the physical constitution of man, he believed that nature had intended him rather for a postilion than a sedentary man of letters." But if even we admit this, and it can only be done with extensive limitations, it may be urged in reply, that the exercise of riding is not practicable in all weather; and that it is precisely to that class of persons who can neither afford the time or expense, that gymnastic exercise is calculated to be peculiarly useful. The same objections may be partly urged against walking, with this addition, that if there is the slightest tendency to hypochondriasis or melancholy, this depressing state of mind is more likely to be aggravated than alleviated during a long and solitary walk; the even motion of progression is not sufficient to attract the attention or afford an agreeable abstraction of the thoughts; the mind reacts upon itself; the patient necessarily broods over his complaints, and failing to meet with that excitement and abstraction upon which the value of exercise so materially depends, returns from his fruitless efforts more exhausted and dispirited than before. It is here that the value of gymnastic exercises become so striking and apparent; a cheap substitute is thus afforded for other exercises, accessible at all times and in all weather. The amount of labour is easily graduated to the strength and capability of each patient; excitement and emulation are kept up by the association of others of equal strength, and each form of chronic disease receives a treatment at once pleasant, appropriate, and successful.

Before I conclude, I have to advert to another important part of physical education, the utility of which may be regarded both in a medical point of view, and as conducive to our self-preservation—I allude to bathing and swimming. Its efficacy as a medical remedy is too notorious to make it necessary for me to say any thing on that subject; I will therefore proceed at once to direct your attention to the art of swimming, and to some of the advantages consequent upon the acquirement. It may be truly said to be one of the finest arts we can possess, for it places us in a new element.

It was the pride of Lord Byron to have imitated Leander in swimming across the Hellespont. Captain Smith also, an Englishman, swam across the lake of Geneva, from Morges to Amphion, and back, without stopping, a distance of twenty-four miles, in still water, which is certainly the greatest feat in swimming I ever heard of, for he had no current in his favour, and being fresh water, and consequently less buoyant, the exertion was the more difficult. I myself in a boyish freak attempted the same thing, but after three hours' swimming, felt myself compelled to desist. Such experiments are not to be performed without risk, but it is well to know the extent of one's capabilities previous to being placed in situations where we may be compelled to exercise them to the fullest extent. A man who has acquired the art of swimming may boast of at all times possess the means of saving his life, where another would run the risk of losing it.

Many persons have been drowned by bathing in places where they thought they were in no danger; had they had the least idea of swimming they might have saved themselves. It is very improper for such persons to bathe in places they are not well acquainted with, for by an accidental slip of the foot the life of the individual may be at once placed in the most imminent peril; besides, the current of the sea is sometimes so strong as to prevent persons from regaining the shore, except by swimming. You will perceive therefore that the luxury as well as the benefit of bathing is in a great measure denied to those who refuse or neglect to learn an art so useful in itself, so pleasurable in the exercise, and one also of such easy acquirement. We ought not to depend unnecessarily upon others for help in a critical moment, but endeavour to place ourselves in the situation of being able to give assistance when required to do so; and the peculiar satisfaction which that man must feel who is enabled, by his individual exertions, to save the life of a fellow-being, will be readily understood and appreciated by every one. The art of swimming is so easily acquired that every one of almost any age ought to endeavour to attain it. In putting children upon their guard against the danger of bathing, you must not frighten them, for they are naturally very timid, and are seldom put into the water without evincing such a dread of the element as wholly incapacitates them from exertion. You must endeavour to explain to them how they can float, even without any movement, and try to give them an idea of striking with their feet and hands together. When you take them off their feet to raise them on the surface of the water, you must support the head to prevent it from sinking, for if you allow them to plunge at these first trials, they will swallow the water and soon be disgusted with bathing. I have seen many persons accompany children to bathing-places, and, after having undressed them, throw them into the water, and take them out without giving them the least notion of swimming. They may bathe for years in that way without being ever able to learn to swim. It is to be regretted that an opulent city like Bristol has no swimming school.

I have thus hastily, and I am aware most imperfectly, noticed some of the principal points in physical education, and those connected with gymnastic exercises in particular; and though the practice of them in this country is as yet but very limited, still I hope

that when the bill, which has already been before the House of Commons, shall be again introduced, which I have no doubt it will, "for the formation and establishment of public walks, baths, and places of healthy recreation and amusement in the open air," on the plan of the continental gymnasia, the public will then be in possession of more suitable means than can of course be now afforded by any private establishment. Then I have no doubt that these exercises, so conducive to health and amusement, will be of universal adoption.

MEDICAL JURISPRUDENCE.

We have been favoured with some reports of Coroners' Inquests, which very forcibly demonstrate the great importance of medical evidence, the extraordinary stupidity of juries, and the great superiority of medical over legal coroners. The first is a mysterious case, which is, in our opinion, most unsatisfactorily decided, and will, most probably, be reversed by the judge of assize. It wanted such a medical jurist as Dr. Fletcher of Edinburgh, to unravel and throw light upon the evidence. The testimony of the medical witness was most scientific and satisfactory.

For the last week or ten days, a very considerable sensation has taken place at the village of Merton, in Surrey, and the adjacent parts, in consequence of the body of a female having been discovered in a well, in a field in the vicinity of Merton, with external marks of violence, and under circumstances that led to a strong suspicion that she had, in the first instance, been cruelly abused, and, subsequently, thrown into the well in which she was found. The magistrates of the district have been very active on the occasion, and the result has been the apprehension of David Haggerstone, the husband, and a man named William Claridge, on strong suspicion of being concerned in the death of the wretched woman.

On Monday morning at nine o'clock, an inquiry (which had been adjourned from Tuesday) occupied the attention of Mr. Wood, the coroner, and a most respectable jury, until a late hour last night. The jury room was crowded to excess; the magistrates of the district, as also the parochial authorities, and a number of the most respectable inhabitants, being present.

William Edges examined: I am a labouring man, and reside at Merton; I knew the deceased and her husband, who have lodged in my house for the last five months; they lived very unhappily together; on the night of Saturday se'nnight, I was at his house with my wife; the deceased was present, and complained of her husband leaving her and the children entirely destitute; between ten and eleven o'clock the deceased went away with William Claridge, an excavator (now in custody); I did not see her again that night; on my return home with my wife, we found the deceased's husband lying on his bed with his clothes on; some hours afterwards, several persons came to the house, and gave information that the body of the deceased had been taken out of a well; Haggerstone, the husband, however, refused to leave his bed to go with the parties to the spot; between four and five o'clock on Sunday morning, he (Haggerstone) was taken into custody.

Mr. Robert Sims, surgeon, of Merton, examined: I was called upon to see the body of the deceased on Sunday morning last; there was a bruise on the right side of the face, apparently produced by a blow of the fist; the legs were also considerably bruised; on a *post mortem* examination, which was attended by three other medical gentlemen, a quantity of extravasated blood was found between the scalp and cranium.—By the jury: I am of opinion that the extravasation of blood on the surface of the brain, was caused by blows inflicted during life; I am decidedly of opinion that the unfortunate woman had been criminally abused shortly before her death; there were bruises about the wrists, as if the poor woman had been held tightly by some party.

Eliza Hedges, wife of the first witness, was next examined: her testimony merely went to show the brutality with which the deceased was treated by her husband, and his refusal to leave the house, when information was brought that she was found drowned in the well.

Sarah Steele, the wife of a labouring man living in Putney-lane, near Merton, being sworn, said: Between one and two o'clock on the morning of Sunday week I was awoke by the loud voices of some persons, who appeared to be quarreling; my husband got up and went in the direction of the well; and in a short time returned in a state of great agitation, and said that a woman was in the well and had screamed for assistance, but he was unable to render it; an alarm was afterwards given to the police, who went to the well. In answer to questions from the coroner and jury, the witness said that, after the quarrelling, which she heard in the direction of the well, she heard a voice exclaim, "Oh, my dear children! oh, my dear babes!"

George Horne, a gardener, residing at Merton, was next examined: about twelve o'clock on Saturday night, the 16th instant, I was passing near the well in which the body of the deceased was found, when I observed a man and a woman a short distance off; they were talking in a very loud manner.—By the coroner: I could not swear to the identity of the parties, owing to the darkness of the night.

George Green and Thomas Wallace proved taking the deceased out of the well; she was quite dead. Some witnesses swore to finding a cap, bonnet, and shawl in a field about a hundred yards from the spot where the well is situated, and which were identified as belonging to the unfortunate woman. There were appearances in the field near the well, as if some persons had been struggling. The prisoner Claridge made a voluntary statement, denying all knowledge of the death of the deceased. The statement in question was signed by him, and witnessed by the two constables, and Mr. Parsons, the proprietor of the White Hart Inn. The following is a copy:—

"That he saw the deceased and her husband on the Saturday night, when they were quarrelling, and the latter struck the deceased several violent blows on the head and other parts of the body, and swore that if she (deceased) did not go home he would murder her; he (Claridge) left them in a field near Putney-lane, not far from the well, at which time they were quarrelling; he (Claridge) then went home."

Haggerstone, the husband, also made a voluntary statement; he said he had parted with her about ten o'clock on the Saturday night, and did not see her again alive.

James Philimore, an acquaintance of the husband of the deceased sworn. I saw Haggerstone on the Sunday morning after the body of the deceased was found; he was much excited and said that Claridge was the cause of her death: he (Haggerstone) appeared to feel for the loss of the deceased, and threatened to drown himself.

A number of witnesses were examined, after which the coroner summed up at considerable length, when the jury retired, and were in deliberation nearly three hours; they returned a verdict of "Wilful Murder against David Haggerstone, the husband," who was accordingly committed to Newgate on the coroner's warrant, the witnesses being bound over to prosecute.

The conviction of the husband must have taken place, more on account of his having lived on bad terms with his wife, and from his refusal to go and see her dead body, than from any direct evidence against him, for there was none. It was proved positively that she left the house at a late hour with the other prisoner; and also that the husband declared that person was the cause of her death.

Mr. Sims, the surgeon who examined the body in the presence of three other members of the profession deposed, that deceased was violated a short time before death; and then the question arises, by whom? Was it likely to have been by her husband, almost at the moment he was about to murder her? impossible! Was it not more likely that the ravisher, on being threatened with the gallows, murdered his victim to save his own life? We strongly suspect that a medical coroner who was a good physiologist, and necessarily well acquainted with the physical and moral influences, would have informed the jury, however ignorant or thick-headed, that it was most improbable that the husband was the violator and murderer. As to his indifference about the fate of his unfortunate wife, it might have arisen from jealousy, in a low ignorant, and heartless individual; and however culpable it was in a moral point of view, is still no proof of murder.

It was not the duty of the medical witness to charge the jury, nor would he be allowed; but had he the privilege, we strongly suspect that the verdict would have been very different.

Bad Effects of Ill-assorted Marriages.

The following case very clearly shews the bad effects of ill-assorted marriages, and the influence of the physical over the uncultivated moral condition of mankind. Similar examples are by no means of rare occurrence:—

Sophia Edney was executed at Ilchester on Thursday week, having in the interval since her condemnation evinced becoming penitence and resignation; acknowledging the justice of her sentence, and fully confessing the facts of her crime as developed on her trial. It appears that she was but 16 years of age when she married her husband (whose age has been erroneously stated), he being then 61 years old. To this ill-concerted match, without the slightest inclination to it on her part, she was persuaded by her friends. She lived at the time in Bristol in a very humble service, and Edney supplied the house in which she lived with eggs, butter, and poultry. About two years and a half ago, she became attached to a young man, and in the hope that he would marry her on the death of her husband, she perpetrated the horrid crime for which she forfeited her life. The individual on whom she had placed her affections was not in the remotest manner accessary to her guilt. She had resorted to the use of poison for the accomplishment of her purpose, from having, as she said, read the particulars of the crime of Mary Burdock, who was executed for poisoning her victim at Bristol a twelvemonth ago. The body was buried within the prison.

Jealousy—Murder of a Wife and Fœtus.

This case demonstrates the horrible effects of jealousy, whether ill or well founded; and proves the evil results of real or supposed infidelity in conjugal life. It shews, like the preceding, the immorality of unsuited marriages, and those not based on confident and genuine affection:—

At Aveley, Essex, April 20, a woman named Clark, had been most brutally murdered by her husband. The col-

blooded determination with which it was accomplished has, it is hoped, not its parallel. It appears that the unhappy pair had been married about eight months, but that for some time past she and her husband had not lived comfortably together. He was a journeyman carpenter, but had for some time past been out of employment. Jealousy on his part, is assigned as the cause of this frightful murder. It seems that they had been quarrelling the whole of the morning, and about two o'clock in the afternoon she complained of indisposition and retired to bed, and her husband left the house without showing any hostile feeling towards his unfortunate victim. In about an hour afterwards, however, he returned, and found his wife still in bed, He continued walking up and down incessantly for about half an hour, when, as though he had been waiting an opportunity, he suddenly threw his arm round her neck, and with a razor, he almost severed her head from her body. She, however, in her struggle for life, sprung out of bed in the direction of the window, and an alarm being given, many of the neighbours were soon in attendance, but to witness the shocking spectacle of a corpse almost decapitated. He never attempted to escape, but very coolly requested some one to fetch a police officer, for he said it was he that had done it, would cheerfully suffer for it, and would die contented. The unfortunate woman was four or five months advanced in pregnancy.

Poisoning with Oxalic Acid, by a Chemist's Errand Boy.

We have often censured the indiscriminate sale of poisons by chemists; and now add farther evidence in proof of the justice of our opinion.

A coroner's inquest was held before Mr. Stirling, at the Maltman and Shovel, Hammersmith, to inquire touching the death of Mrs. Lydia Torneer, who met with her death in consequence of taking oxalic acid, which was accidentally administered for salts by her daughter. Miss Lydia Torneer, the deceased's daughter, residing in High-street, Hammersmith, deposed that her unfortunate parent being occasionally indisposed, she was in the habit of taking salts, which witness kept in a small basket. About a fortnight ago she applied to the deceased's grand nephew, who is in the employment of Mr. Reboul, a chemist in Hammersmith, to procure something with which to clean coral. He stated that he believed soda would do, and he engaged to bring her some. He brought her a paper packet, which he placed in her hands. Having taken a part to clean the coral, she put the packet down, and a portion by some means afterwards got into the basket among the salts. On the same day that it was brought, the deceased required some salts. Witness emptied the contents of the above packet, which she took out of the basket, not knowing that it had been put there, and which she diluted in water, leaving it to stand till the following morning, when she gave her mother some of it. In a few minutes her unhappy parent suffered violent pains, and she became greatly alarmed, observing, "Oh! my God, I am afraid I am poisoned." Mr. Simpson, a medical gentleman, on being sent for, promptly arrived, and said the deceased had taken oxalic acid. The paper which had contained the poison was produced and laid before the coroner. There was no label on it. By the Jury: It was witness's opinion that the packet given her contained soda. Mr. Reboul, chemist, Hammersmith, said that he found no entry in his books of any salts having been sold by Jackson, who was not employed in the shop; his duty was to attend alone to the pestle and mortar, and never to sell any medicines; a young man, witness's assistant, is alone authorized to sell; witness's medicines have invariably a label on them. The assistant to Mr. Reboul said that he recollected Jackson asking him if soda was not proper to clean coral, when witness told him that oxalic acid was proper, but he was not aware that he was going to take any. The coroner in summing up, remarked, that the melancholy event arose from the carelessness of the boy Jackson, in not stating that the packet contained oxalic acid. Verdict, "That the deceased died from swallowing oxalic acid, administered in mistake for salts;" and the jury reprimanded the boy for taking the poison without his master's knowledge.

Danger of Self-doctoring—Poisoning by Calomel.

The following case affords a good example of the danger of self-doctoring and poisoning, though the morbid effects are not as clearly described as they ought to have been.

On Monday, an inquest was held at the William the Fourth, in St. Andrew's Road, Newington, before Mr. Woods and a respectable jury, on the body of Mrs. Elizabeth Corbin, a naval officer's wife, whose death was occasioned by taking an over-dose of calomel. A rumour prevailed in the neighbourhood, that the medicine had been administered to the deceased in so large a quantity by her husband, as to produce death; but it will be seen by the evidence that there was not the slightest ground for the report.

Mrs. Maxwell deposed that she lived next door to Lieutenant Corbin, on Union Terrace, Newington, and that on Sunday, the 17th inst., she was sent for by that gentleman, in consequence of the serious indisposition of his wife. When witness went to the house, she found Mrs. Corbin in bed, apparently labouring under great nervous

excitement, and when asked what was the matter with her, she complained of excessive pains in the head, stomach, and abdomen. She then told witness that she had taken twenty grains of calomel, adding that she was afraid that she had not taken sufficient, and that she should take more the following morning, if she found that she was no better. The witness, seeing that the deceased was in a very dangerous state, recommended a medical man to be called in. and this advice was promptly attended to, but the deceased expired the following day.

Mr. Evans, a surgeon, stated, that when called in, he found the deceased labouring under the effects of an over-dose of calomel, and on questioning her, she told him that she had taken twenty grains of that powerful medicine at one time, besides a considerable quantity previously. He prescribed for her, but she died on the following morning, and he added that her death was caused by the quantity of calomel she had taken.

The deceased's husband stated that she was subject to bilious attacks, and on those occasions she was in the habit of taking calomel. Previously to her decease, she had one of those attacks, and took a moderate quantity of that medicine, but owing to its not having made her mouth sore, she imagined that it had not had the desired effect, and, without his knowledge, she took twenty grains more in one dose, from the effects of which she did not recover.

It was stated that the deceased, who was only thirty years of age, was always doctoring herself, and although frequently requested to send for a medical man on those occasions that she felt ill, she always refused to do so, saying that she knew how to doctor herself without the aid of any person.

A verdict was returned "that the deceased's death was occasioned by taking too great a quantity of calomel."

Reviews.

A Letter to the Right Hon. Lord John Russell, His Majesty's Secretary of State for the Home Department, on the Condition of the Pauper Children of St. James, Westminster; as Demonstrating the Necessity of Abolishing the Farming System. By T. J. Pettigrew, F.R.S., F.S.A., F.L.S., Surgeon to the Charing Cross Hospital, the Asylum for Female Orphans, &c. &c. &c. 8vo. pp. 43. London: Rodd. 1836.

All our metropolitan, and many of our provincial readers, must have observed in the Parliamentary reports, and in the newspapers, the humane conduct of Mr. Pettigrew in exposing the gross mismanagement of the truly unfortunate pauper children of no less a parish than St. James, Westminster. The whole kingdom rings with indignation at the cold-blooded and atrocious Poor Law Act, which was passed by childless and heartless enemies to population, and which must be speedily modified. This "boon to the female population," this infliction of pains and penalties on the seduced mother, and exemption of the base, vile, and heartless father; this law that separates husband from wife, can have no supporters among men whose minds are enlightened or properly cultivated.

It is a matter of regret to us, that so enlightened and wise a statesman as Lord John Russell, Leader of the House of Commons, and Secretary of State for the Home Department, should by possibility appear in an unfavourable light before the public; but that he does so, we are satisfied, from pressure of public affairs, is proved by the following evidence offered by Mr. Pettigrew:—

"It will, no doubt, be in your lordship's recollection, that on the 2nd of March last, I addressed a letter to your lordship to acquaint you with the condition of the infant paupers belonging to the parish of St. James, Westminster, and at that time in the workhouse in Poland-street. That the communication made known to your lordship the fact of their melancholy state and the ravages that disease had inflicted among them;—that I was disposed to attribute this to the particular manner in which the children had been treated, and that notwithstanding the reports which had been made of the very sad condition of the health of the children, the parochial board had not taken those steps which the urgency of the case appeared to require, to put a check to the disorder with which they were affected or adopt those measures which were calculated to arrest the progress of the fatality amongst them.

"It was not until the evening of the 7th that I received any acknowledgment of the receipt of my communication, when I learned by an official letter from Mr. Phillipps, that the statement had been received and that your lordship had 'made a communication to the Poor Law Commissioners on the subject, for the purpose of obtaining any information which they may have received.' Not having received any notice to attend the commissioners, and having reason to fear that there existed a disinclination to look with promptitude and vig

into the matter, I ventured to make known through the agency of the public press, the grievance, which in my opinion so loudly called for redress. I found no hesitation on the part of those concerned in the conducting of a liberal paper, favourable to the administration of which your lordship forms a part, to attend to the calls of humanity; and, in the Morning Chronicle of the 12th March, some extracts from my letter appeared, which immediately drew public attention to the condition of these poor children. The officers of various parishes and the vestry clerk of St. James, expressed their anxiety upon the matter, in communications addressed to the Morning Chronicle of the 14th. The letter of Mr. Buzzard, the vestry clerk, was as follows:—

"'*To the Editor of the Morning Chronicle.*

"'Sir—A statement having appeared in your paper of this day, in the shape of extracts from a letter addressed by Mr. Pettigrew, of Saville-row, to Lord John Russell, commented upon by you, containing the most unfounded charges against, and attributing the basest motives to, the authorities of this parish, in their management of the pauper children—I am instructed to beg that your readers will suspend their judgment with reference to this subject, until the report of a physician, who recently visited the establishment at Norwood, for the express purpose of investigating the causes of the disease among the children, has been obtained, when the authorities pledge themselves to lay a full and impartial statement of their treatment of the poor before the public, for whose information, in the interim, I am directed to add, that Mr. Pettigrew's communication has been forwarded by Lord John Russell to the Poor Law Commissioners, who have inquired into the facts of the case, and declared themselves perfectly satisfied with the prompt measures pursued by the parish officers throughout this business.

"'I am, Sir, your obedient humble servant,

"'GEORGE BUZZARD,

"'Vestry Clerk, and Clerk to the Governors and Directors of the poor of the above parish.

"'50, Poland-street,

"'Saturday evening, 12th March, 1836.'

"As this letter expressly states the satisfaction of the Poor Law Commissioners upon their inquiry into the facts of the case, and as such a result could not but reflect upon me and tend to throw discredit on the statements I had made, I wrote to your lordship on the 14th, to request a copy of the report of the commissioners, which appeared to my mind so much at variance with the truth of the case. To this communication I received a letter on the 16th, from Mr. Phillipps, which I shall here insert:—

"'Sir—I am directed by Lord John Russell to acknowledge the receipt of your letter of the 14th instant, and to inform you, that he must decline at the present time to accede to your request of being furnished with a copy of the report of the Poor-Law Commissioners, relative to the condition of the infant paupers of St. James's parish.

"'I am, Sir, your obedient servant,

"S. M. PHILLIPPS.

"'T. J. Pettigrew, Esq., Saville row.'

"This letter, it will be observed, bears the date of the 16th, and it will scarcely be credited that with this refusal it shall appear, that your lordship did on the evening of the 14th, in reply to a question asked of you by Mr. T. Duncombe in the House of Commons, to ascertain 'whether any inquiry had been instituted by the Poor Law Commissioners with reference to the case of the pauper children of the parish of St. James, Westminster, farmed out at Norwood; and if so, whether on inquiry the statements of Mr. Pettigrew which had gone forth to the public, were borne out?' Your lordship should say that you 'could not answer the question from any formal report of the Poor Low Commissioners; but from information you had received, you must certainly say that it was not right to take for granted the statements contained in Mr. Pettigrew's letter on that subject.'*

"Now, my lord, I ask you whether it is fit and becoming of your lordship to avail yourself of your high position in the House of Commons to speak of a communication received under the circumstances in which mine was forwarded to you—relating to a subject of such great and painful importance—which regarded the health of the infant paupers, upon whose strength of constitution and physical powers the stability of this country, and the success of its commercial undertakings must so materially depend;—to speak of a document not before the House and not fairly inquired into—in this loose, and I must add, wanton and thoughtless manner? My lord, is this the courtesy due from a Minister of State for disinterested exertions to expose a public abuse? Is it the conduct of one gentleman to another? I answer no. I declare it to be no less an act than that of

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"* This report is taken from the 'Times' newspaper of Tuesday the 15th of March. The terms in which the answer is reported in other newspapers varies a little. The 'Morning Chronicle' makes Lord John Russell to say, that 'it appeared that the whole of Mr. P.'s statement was not to be taken for granted;' and the 'Morning Herald' makes his lordship to say, that 'he had received information sufficient to say, that it would not be right to take for granted all that was in Mr. P.'s letter.' The expression, though varying as to manner, conveys the same imputation."

practising a deception upon the country—an unjustifiable attempt to throw discredit on my statement, and an impeachment of my veracity.

"In the letter of the 2nd of March I expressly told your lordship, that I had no object in making the application to your lordship but that of obeying the dictates of humanity; that I was attached to no party; that I never had engaged in the squabbles of the parish, nor ever attended a single parochial meeting; that I was even ignorant of the names of the officers of the parish; but that having witnessed a horrid spectacle, and finding a disinclination on the part of those* whose duty it was to look over and watch the poor, to do that which was absolutely just and necessary, I did not hesitate to make the appeal to your lordship as a sacred duty imposed upon me as a man and a christian. My lord, I made this appeal to your lordship, as one standing in a situation which enabled you to remedy so serious an evil, and I did flatter myself that these poor squalid objects, the hapless children of misery, would have found in your lordship a powerful friend and protector. I stated nothing in that letter which has not subsequently been shewn to be true—aye, true to the letter. I defy any one to point out any personal or party object or feeling connected with it as respects my exertions, and it would be well for others could they stand as clear of such imputations. I am now prepared to substantiate my letter, and to prove the entire truth of that document, all the statements contained in which, according to your lordship's assertion, 'are not to be taken for granted.' But, before I go into this, I must direct your lordship's attention to the conduct of your own board of commissioners."

The Poor Law Commissioners, who, well *paid* for performing their duties, have hitherto economized so much cheese-parings, in various ways, and more particularly in supplying medical aid on the lowest terms, as to have thoroughly disgusted the public, and excited universal dissatisfaction, are happily exposed in the following extract.

"That which will strike every unprejudiced person as most extraordinary in the conduct of the Board of Poor Law Commissioners upon receiving such a communication, forwarded to them by the Secretary of State for the Home Department is, that the individual upon whose authority these charges were made, should not have been called upon to verify his statement; or that the churchwarden who applied to me professionally to see these children, should not have been examined by them. The neglect, in either case, could not have arisen from ignorance. Mr. Gibbs (the churchwarden) was mentioned to the Commissioners by one or more individuals as the person from whom correct information could be obtained. The Rev. Gerrard Thomas Andrewes mentioned Mr. Gibbs's name to the Commissioners. This humane and excellent man, to whom, when at the workhouse, I pointed out three or four of the wretched children states, that he wrote to one of the Poor Law Commissioners, and that he was in consequence requested by the Commissioners to give them some information relative to the children in the workhouse; and when he saw the Commissioners, he told them they should send for Mr. Gibbs, the churchwarden, Mr. Braine, the surgeon, and the overseers of the poor. He specified Mr. Gibbs by name, and added, that he was *the most proper person to communicate with on the subject.*—From whom did the Board seek information? From the vestry-clerk—from the assistant overseer—from persons forming part of the board of guardians, to whom the care of these children was entrusted — to those, whose conduct was the subject of investigation, and whose character was deeply implicated in the inquiry. And to whom, my lord, did the Board of Commissioners entrust this important inquiry—this investigation into the nature and condition of the Norwood establishment? Was it to the assistant commissioner, Mr. Mott? Did not Mr. Mott formerly farm the poor of the parishes of Lambeth and Newington? Did not Mr. Mott formerly keep an establishment for the reception of infant paupers at Brixton*, similar to that now kept by Mr. Aubin at Norwood? Did not Mr. Mott even apply for the children of St. James's parish; and did he not receive a refusal, on account of the admixture of the adult and infant paupers, the small space allotted for exercise, and the flooring of his building being beneath the surface of the ground? Is this person to be considered as a disinterested agent? Can he be otherwise than prejudiced in favour of establishments, of which he has himself not only been the advocate but the proprietor? But, enough upon this head. Let me now refer more particularly

"* In speaking of the acts of the Board of Governors here, and in other places in this Letter, I beg to be understood as alluding to those only who formed the majority. Several of the members, some in writing, and others orally, protested against the continuance of the system pursued with respect to the children; but they, unfortunately, constituted a minority of the board."

"* I have heard that the children returned from Norwood are now to be sent to this establishment, and at a price below that which was paid to Mr. Aubin of Norwood."

to my letter, and see how fully the points embraced by it can be substantiated. The first statement made is that I was called upon professionally to visit some sick children in the workhouse of St. James, forming a portion of a mass (about 80) that had been farmed out at Norwood. That is a position fully proved on oath at the inquest on the poor boy, George Coster. The term 'farmed out' has been made the subject of a legal quibble, as, according to Mr. Adolphus' opinion, it implies persons undertaken to be fed, &c. at a certain price, for which, however, they are in addition to give their labour. The ordinary acceptation of the term is, I believe, of a different description, and I used it as applying to a contract or agreement entered into by the parish authorities for the maintenance, clothing, &c. of the children, to be furnished by Mr. Aubin. *As to the labour to be performed by children of such tender age as from six weeks or months to seven or eight years, no person could for a moment entertain the idea; and as to labour to be performed by these* children, the prospect of that is indeed very distant. I stated the sum at which they were to be provided with lodging, clothes, food, education. &c. including medical attendance and all other necessaries, was small. It was proved at the inquest to be 4*s*. 3*d*. per week."

Happy country, in which children from six weeks or months!! to seven or eight years of age, are compelled to labour for the necessaries of life. Can any physiologist or pathologist be surprised at the inordinate puerile mortality in this kingdom, at the depraved moral and physical states of the unfortunates—and they are few in number—who arrive at the adult age under such circumstances, or of the miserable offspring they perpetuate, after such a violation of the laws of nature and hygiene. Not one of our scientific readers can doubt or question the accuracy of the following description of poor children treated in this barbarous manner.

"My description of the condition of the children generally I have sworn to, and it is a testimony that has not been disproved in any one point, or even attempted to be refuted. I shall give an extract from my letter on this head:—

"'The picture is almost too horrible to describe. I found the children with large heads, tumefied bodies, shrivelled and wasted limbs—mostly in a sitting posture, with their legs crossed—and I found upon inquiring of the nurse of the ward No. 9, in which the greater number of the sick were placed, that any change from this position occasioned them pain, and caused them to cry. The continued posture to which it is evident they have been accustomed has given to many a curvature of the bones of the legs; they have, in short, become rickety from the want of exercise, and, I fear, an insufficient supply of wholesome nourishment. They labour under mesenteric disease in its various forms and stages. Some have discharges of blood and mucus; some from fifteen to twenty evacuations daily—all suffering from extreme thirst, and now, that under the judicious advice of the surgeon of the parish, they are taking proper nourishment, they become flushed upon receiving it. The state of their skin marks the condition of the internal organs—it is dry and scurfy—in many places, both on the head and limbs, particularly the lower ones, *ulcerated*. Languid and feeble circulation, and other marks of general debility, are strikingly apparent. Their glands are enlarged—their bodies swollen and painful to the touch. Some I found in the greatest state of prostration. The sight was truly appalling.'

"This relation is undisputed. I declared the disease to be mesenteric. Has not all the evidence produced at the inquest upon Coster proved this? Did not the dissection of the body establish the fact? Did any one venture to give a different opinion? No one. What then was my course of reasoning upon these cases? I shall give it in the words of my letter:—

"'It is quite clear that such an uniform character of disease among so many children, the offspring of different parents, must be the result of the particular manner in which these children have been nursed and maintained.' And, I added, 'They are unfortunately too young to tell their own tale; but although their intellects are not sufficiently matured to give this information, their appearance and condition bespeak it but too powerfully. I do not hesitate to declare my firm belief that their wretched condition is the result of either an insufficient supply of food, or a supply of improper food, and a want of exercise. Either of these causes, or the combination of them, is adequate to the production of the effects it has been my unhappiness to witness.'

"Every professional man of experience will, I am sure, admit the justness of these observations—every one acquainted with the diseases of children—having a knowledge of the structure of the human body—capable of detecting the differences between infancy and mature age, and of marking the alterations in texture which the various organs undergo at the different stages of existence, will at once see and admit the accuracy of my statement. But, I have not gone far enough. I ought not to have stopt short, as there are other causes which may operate in a very powerful manner in the production of disease among children. Bad air—impure air—air that has been

breathed over and over again by the assembling together of too great a number of children in one apartment; and I am informed by two physicians of high character and attainments (Dr. James Copland and Dr. Sigmond), both teachers of their profession, and distinguished by their publications, that in the male ward of Mr. Aubin's establishment there are no less than *ninety* beds; and that in each of these beds, according to the size of the children, two or three are placed to sleep. The congregation of so many children in one apartment, with the windows closed as they must necessarily be at night during the hours of rest, is highly improper and prejudicial to health. It is a fertile source of disease. Nearly 300 children sleeping in one room!*

"I have said, that 'it appears (and this I derived from my inquiries made when at the workhouse at the time I visited the sick children) that at Norwood there is an establishment where children from various parishes are farmed at a small price per week —that these children, amounting to several hundreds, are associated together, and very inadequately supplied with the attendance of proper nurses; they are consequently deprived of the *quantum* of exercise which is absolutely necessary to the health and well being of the infant. Physiologists know full well that the principal energy of the nervous system of the child is directed to its voluntary muscles, which appear to be, in the healthy state, in almost perpetual action. Without exercise it is impossible for the functions of the body to be continued with due power and activity, and, if, in the growing child, where none of the organs are as yet matured, food be improperly administered, or be of an improper character, the secretions are thrown out of order, become vitiated, irritate the system, and produce universal disorder.'

"This statement will be found to be fully proved by the evidence of Mr. Aubin and Dr. Lee. Mr. Aubin stated at the inquest, that he had the children of *fifty-six parishes!!!!* and Dr. Lee says, 'the want of a sufficient number of experienced nurses has doubtless contributed much to extend and aggravate disease among the children.'

The children of fifty-six parishes in one establishment! Oh! excellent Poor Law Commissioners, who approved of this system, so destructive of human life, and such a boon to the pauper population.

We have next to examine into the conduct of the parish officers, which reflects unextinguishable lustre upon their philanthropy.

"The only remaining statement in my letter to be noticed, is that which relates to the conduct of the parish officers who, I assert, had repeatedly had their attention called to the condition of these infants—had received unfavourable reports as to their health, and who, I confidently affirm, did not take the decided steps they ought to have done, and at once checked the mischief by removing the children from a situation ill adapted to their tender years, and where the mode of treatment appeared to be attended with so unsatisfactory a result. These points I shall fully show from the reports of the board of governors, the accuracy of which I presume they will not attempt to dispute.

"It appears that in the month of August, 1834, the infant paupers were removed from Wimbledon*, where they were placed at nurse, to Mr. Aubin's establishment at Norwood. On the 9th of September they were visited by the board of guardians, or governors (for this latter appellation seems much better suited to the mode of conduct adopted by the majority of them), and on this occasion they report that 'the healthy appearance of the children, as well as the general condition of the institution proved very satisfactory;' but in little more than two months from this time, namely, on the 19th of November, Messrs. Harrison, Branscomb, and Pitt, and Mr. Pennington, the acting overseer, accompanied by Mr. Braine, the parochial surgeon, visited the children, 'in consequence of the receipt of a letter from Mr. Aubin, and the *number of deaths* which had occurred among the children;' and Mr. Harrison reports 'that William Gardener, the child named in Mr. Aubin's

"* I refer all who are anxious to know how productive of disease is the want of ventilation and the congregation of a great number of persons in one sleeping apartment, to the article 'Age,' in Dr. Copland's Dictionary of Practical Medicine, where the subject is treated in a most masterly manner."

"* At Wimbledon the children were placed under a very excellent system: an elderly woman having a proper assistant, acted as nurse, and she was permitted to have only a limited number of children, not amounting to more than 12. Emulation was thus excited among the nurses as to the condition of the children entrusted to their care. If indisposed, they were immediately attended to by Mr. Bright, a practitioner in the neighbourhood, who received a regular salary from the parish to superintend the medical department at this place, and a report was regularly made by him, and also by the parochial surgeon, from distinct visitations, on the condition of the children, and these were sent in to the board every fortnight. At Wimbledon the deaths never amounted to more than 4 annually in an average of 140 children, whilst at Norwood they constituted at least 4 times that number."

letter, was dead, that several others were in a very doubtful state of health, and the other children generally in the establishment bore a very cold and uncomfortable appearance.' On this occasion Mr. Braine, the surgeon, also reported 'the unhealthy condition of the children with very few exceptions, and the apparent want of a proper system of medical treatment, and of judicious and comfortable accommodation for the sick in the establishment.' Two days only were permitted to elapse before another report is made, and it is now stated that the children 'in general looked very well, with the exception of ten, who appeared sickly,' and these were said to have been so when sent to Norwood, and they were ordered back to the workhouse. Mr. Russell on this occasion reports 'that he did not consider the establishment possessed sufficient accommodation for sick children.' At this meeting Mr. Braine (whose testimony must certainly be admitted to be entitled to more attention than that of the parochial officers on a question of health, and the circumstances necessary for the maintenance of it), says, 'that he remained of the same opinion as before. That the sick ward, though improved, was still very uncomfortable, and that although the children generally appeared better than on the previous visitation, they were nevertheless not in health.' And, in reply to an observation made on the subject, Mr. Braine stated 'that the children in the workhouse were generally healthy, while the girls in the Burlington-school were not well; but that the children at Norwood were looking worse than the latter. He considered the health of the children at Norwood to be below par.'"

Of what use was it that the parish surgeon declared the health of the children below par, when his opinion produced no effect?

We have next the report of Dr. Tweeddale, employed by the parish of St. James, dated Sept. 24, 1835, in which are the following words:—

"'By this you will perceive that forty, or one-half of the children only, may be considered in a state of perfect health; 20 are in a tolerable state of health, with the exception of the ringworm; five with scabies, whose healths are only slightly impaired; seven are suffering from mesenteric fever, accompanied with enlargement of the glands; seven are rickety from scrofulous constitution; and one chronic inflammation of the eyes from the same cause.

"'I am decidedly of opinion that most of these diseases may be fairly attributed either to improper or deficient nourishment, and would recommend that the elder children should be supplied with meat daily, varying the quality, such as roast meat, either beef or mutton, corn beef or pork, boiled or hashed mutton, broths, beef-steak puddings, &c.

"'The dining and smaller bed rooms are not sufficiently ventilated, and would recommend more ventilators being placed on the sides of the building. I consider the situation of the establishment to be perfectly unexceptionable, but do not think the playground to be sufficiently extensive for the number of children.

"'I shall be happy to answer any question the Committee may think proper.

"'I am, Sir, your very obedient servant,

"'J. Tweeddale, M.D.

"'Senior Physician to the Royal Metropolitan Infirmary and the Royal Naval School.'"

Mr. Braine, the parochial surgeon, dissented from the favourable conclusions of certain governors of the poor, as to the health of the children, for which he was interdicted from writing any farther reports in the record kept at Mr. Aubin's establishment. This was of course what was to be expected, after the following report by that gentleman.

"'The parochial Surgeon of St. James, Westminster, dissents entirely from the above report. There are about 80 children in this establishment belonging to the above parish, 20 of whom are sick and invalids.

J. W. Braine.'"

There is another extract which must come in here.

"The last report to be mentioned is that of the rector, the Rev. J. G. Ward, Mr. Robson, and Mr. Graham, and it contains some important points. It is the result of a visitation on the 3rd of March, made in company with Dr. Robert Lee. This examination was conducted with great circumspection in the presence of Mr. Street, the medical attendant of the Norwood establishment. These gentlemen express the pain they felt on beholding the state of health of many of the children, and declare themselves against the 'elevated and exposed situation of the establishment,' which, they add, 'must, during the winter season especially, be injurious to the health of sickly and delicate children.' But the most serious part of the report is that which relates to the inexperience of the nurses, and the want of proper medical superintendance.

"'On the whole we are of opinion that the most defective part of the establishment is in the nursing of the children. We could not but take notice that the nurses, in their replies to the questions of the medical gentlemen, seemed to have a very imperfect knowledge of the state of health of the children, beyond the mere circumstance of their having or not having an *appetite*. We consider that disease may, in consequence,

lay fast hold upon the children before it is perceived, which might in the first instance have been arrested probably, without much difficulty. We observed also, as connected with this subject, that the medical practitioner (a gentleman apparently of sense and ability) attends merely to those patients who are expressly brought before him; whereas our opinion is, that he should be considered moreover as an inspector over the whole, examining and watching continually for the first symptoms of disease in any of the children.'"

"I have thus reviewed *all* the statements made in my letter, and I now call upon your lordship to point out any one of them that has not been fully substantiated. There is not a tittle that can be disproved—that cannot be shown to be true to the greatest extent. I have fully proved that the parish children were placed at an establishment at Norwood—at a small price per week for their clothing, feeding education, medical attendance, and all other necessaries. That, according to the reports of the various committees of the governors of the board, of the dates of 19th November 1834; July 6th, 24th, September 15th, 1835; and February 23rd, 1836, the children have been reported seriously ill. That according to the reports of November 19 and 21, 1834, by Mr. Braine, the surgeon, 'the apparent want of a proper system of medical treatment, and of judicious and comfortable accommodation for the sick in the establishment,' was announced to the board. That, according to the report of Mr. French, the apothecary, 'the condition of the children was attributable to the complaint not being sufficiently attended to on its early appearance, and to a want of experienced nursing,' and also to the 'low temperature prevailing throughout the establishment, which he considered had a tendency to bring on the disease.' That, according to the report of the 6th July, by Messrs. Robson, Cater, and Peat, the state of the children was 'sickly and unhealthy;' that there was 'a manifest inattention and want of personal cleanliness;' and that according to the report of two other governors, Messrs. Harrison and Aldous, on the 24th July, the establishment at Norwood was 'not the place best suited for children of so young an age;' and again of the same date by another governor, Mr. Peat, that 'the infants and younger portion of the children appeared to require judicious domestic treatment and more care and attention.' That, according to another report by three other governors, Messrs. Miley, Miller, and Hunt, on the 15th September, the children did 'not appear in such good health as when sent to the establishment;' that according to the report of the rector and two other governors, Messrs. Robson and Graham, 'the most defective part of the establishment is in the nursing of the children,' and that the medical superintendance is insufficient; and that, notwithstanding all this testimony by members of their own board, and by the surgeon and the apothecary of the parish, the majority of that board were so determined to pursue their *economical* system, that they never dreamt of removing the children, although their condition was seen to deteriorate as early as between two and three months from their reception into the establishment—to get worse and worse, until their removal, since which time, by very judicious treatment, the health of many have been very much improved, as is now to be seen in the workhouse and elsewhere; and if this evidence be not deemed positive and conclusive, I know not what will carry conviction to your lordship's mind or that of the Poor Law Commissioners, who, in Mr. Buzzard's letter, are stated to have 'declared themselves perfectly satisfied with the prompt measures pursued by the parish officers throughout this business.' And this brings me again to notice Mr. B.'s letter, in which (written by the instruction of the Poor Board) he calls upon the public to 'suspend their judgment with reference to this subject, until the report of a physician, who recently visited the establishment at Norwood, for the express purpose of investigating the causes of the disease among the children, has been obtained, when the authorities pledge themselves to lay a full and impartial statement of their treatment of the poor before the public.' But, as this Board of Governors of the Poor have failed to lay this report of the physician before the public, I shall here introduce it, and a second one by the same able and competent physician, written upon a more mature consideration of the subject.

First Report.

"'Gentlemen—In compliance with your instructions communicated to me last evening by Mr. Buzzard, I proceeded to Norwood this day, to inspect the children in the establishment of Mr. Aubin. These children were individually examined by me, in the presence of the Rev. Mr. Ward, Messrs. Robson and Graham, and the two medical officers of the parish.

"'Of fifty-two children in the institution, I found only fifteen in a state of tolerable health. There were nine seriously indisposed, and the whole of the remainder were suffering from a deranged state of the stomach and bowels, with symptoms of scrofulous disease more or less apparent.

"'Respecting the causes of the unhealthy state of the children, it would be unsafe to pronounce an opinion, without a more careful investigation of them than it is possible for me to make in the limited period which has been allowed to draw up this report, and without examining the condition of the children in other institutions. In the meantime I would recommend the following children to

be removed forthwith from Norwood to the parochial infirmary*.

"'I have the honour to be, &c.

"'ROBERT LEE, M.D.'

"'March 4, 1836.

"'Gentlemen — Having examined the children with Doctor Lee, and seen his report to the Governors of the Poor, it would be mere repetition to state the facts which he has laid before you. We therefore beg to express our entire concurrence in his opinion.

"'We are,

"'Gentlemen,

"'Your obedient servants.

"'J. W. BRAINE.

"'J. G. FRENCH.

"'To the Governors of the Poor of St. James's, Westminster.'

Second Report.

"'Gentlemen—In your resolution of the 2nd instant I was requested to inspect the children at Norwood, belonging to this parish, for the purpose of ascertaining the probable causes of the diseases prevalent among them, and to furnish a written report of the results of my observations.

"'The actual condition of health and disease which I found to prevail amongst the St. James's children placed at Norwood, I have already stated in the report which I had the honour of laying before you on the 3rd of March.

"'In endeavouring to assign the causes which produced this sickly condition of the children, I am fully aware of the difficulty of the task, and am ready to acknowledge that an opinion formed upon this subject with the greatest caution may nevertheless be erroneous.

"'Although some of the children were reported to be ill in the month of September, yet I am inclined to believe that the exposed situation at Norwood, the severity of the weather during the winter, and the consequent crowding together of the children for longer periods than usual, and the deficiency of proper exercise in the open air, necessarily resulting from these unfavourable circumstances, have mainly contributed to impair the health of the children.

"'The want of a regular Medical Superintendent of the Institution, and of a sufficient number of experienced nurses, has doubtless also contributed much to extend and aggravate disease among the children.

"'The disordered state of the digestive organs observed in many of them might lead to the supposition, that there was something defective in the quantity or quality of their food; but the Dietary stated by Mr. Aubin, to be in use at his Institution, is essentially the same as that in use at other extensive establishments which I have recently visited, and where I found the children in a state of good health.

"'I have the honor to remain, gentlemen,

"'Your faithful and obedient servant,

"'ROBERT LEE, M.D.

"'To the Governors of the Poor, St. James, Westminster.'"

We now arrive at Mr. Pettigrew's comments, which no well informed member of our profession can question.

"Now, it is clear, from the reports of the Board of Guardians of the Poor, and the reports of the several professional men, who have been sent by the parochial authorities to visit the establishment at Norwood, that there were very great defects as to cleanliness, experienced nursing, and medical treatment. I feel it but due to Mr. Aubin, the proprietor of this establishment, to say, that from all the evidence that has been given, there does not appear to have been any disinclination on his part to attend to the suggestions of all who visited these children. But the system is bad, and ought not to be allowed; it is impossible that so many children congregated together under such circumstances can be healthy. Neither ought there to be any incentive to traffic in humanity—no temptation should be placed in the way of individuals to make money or derive a profit upon such an object as the support of the poor. The government, and the government alone, if such a system is at all to be pursued, ought to have the control and management of such establishments; and with officers regularly salaried and of course placed under proper responsibility. This case does not merely apply to the children of St. James' parish, but to others. I have seen one dreadful case from a neighbouring parish, of a child brought away from Norwood, the details of which are shocking. I have given a place of refuge to this poor boy in the Charing Cross Hospital, and placed him under the care of an enlightened and humane physician. I have had other children from Norwood brought to me*—they are all of the *same* description—it is the *same* disease, and doubtless occasioned by the *same* treatment†. It is a system whic..

"* Nine children, whose names it is not necessary here to specify."

"* A child from Norwood has also recently died in St. George's Hospital. Dr. Wilson tells me, that the appearances upon dissection were similar to those in Coster. He never before saw such an entire absence of fatty matter."

"† It was proved at the inquest, by the evidence of Dr. Robert Lee, that at the time he examined the children belonging to the parish of St. James, he also inspected the other children (some hundreds) in the establishment, and he inserted a passage in his report to this effect; but upon the repre-

loudly calls for correction—nay EXTINCTION. The children of St. James' went on well at Wimbledon. Why remove them? There they were to be seen sporting about in all the buoyancy of youth—in the enjoyment of full health—robust limbs—ruddy cheeks, and smiling countenances. Happy innocents! Good God! what a contrast to the picture it has been my lot to draw—a picture, the like of which will I trust never be again seen in this country. But, I have permitted my feelings to carry me away from a more particular consideration of the inquest with which I set out."

We have next to notice the coroner's inquest on the body of one of the mismanaged and barbarously treated children; and if it does not show the necessity of medical coroners, we do not know what does or can.

"I have said this inquest was got up by the parochial boards. The foreman of the inquest was Mr. George Lawford, a parishioner, who has distinguished himself by his support of the majority of the Board of Governors, and to which Board I find he has since the inquest been elected, together with two others of the jurymen on that occasion, and in the room of three individuals who were opposed to the proceedings I have noticed. Mr. Lawford was objected to by Mr. Daniel, a barrister of great respectability, who attended the inquest on the part of Mr. Gibbs, the churchwarden, to watch the inquiry. He was objected to on the ground of his having publicly expressed an opinion on the subject upon which the jury was called to deliberate*. But the objection was overruled, as according to Mr. Adolphus, it not having been made before Mr. Lawford was sworn, he was compelled to serve and no one could displace him. So it proceeded, and Mr. Lawford was the foreman.

'Ab uno disce omnes.'

"It is not in my power to describe this *Court of Justice*, or to enumerate a hundredth part of the difficulties I had to encounter in the delivery of my evidence, or in endeavouring to arrive at the truth from others. A determined perseverance, however, and the consciousness of doing my duty, enabled me (though necessarily in an imperfect manner) amidst hootings and hisses, clapping of hands, scraping of feet, all sorts of indecorous expressions; and added to this, insult and impertinence from the hired lawyer (Mr. Adolphus) on the occasion, to get sufficient of the case before the jury to satisfy the public of the discrepancy of the evidence and the verdict with which the affair terminated. It was in vain that I protested against haste and precipitancy—that the dissection of the body should be done with great care and precision—No—it was determined to be proceeded with, and witnesses were to be examined just according to the order chosen by the Parochial Board and their friends, the Vestrymen, Rate-payers and every body else; for, at this inquest any body was allowed to speak who had voice sufficient to make himself heard, and the whole inquiry which, to have had anything like justice done to it, would, as the report of a morning paper (the Herald) justly observed, have occupied as many days as it has hours, 'if all the circumstances attending the removal of the children, the visitations the reports, &c. had been gone into, and the evidence taken down at length by the Coroner, which was not done, he deeming it unnecessary, as the cause of death by mesenteric disease was so clearly proved.' The inquest lasted from four o'clock of the afternoon of Saturday the 19th March, until two o'clock of the *Sunday* morning. At the commencement of the Inquest I gave in a list of the names of several persons whom I deemed it would be necessary to examine on the occasion, none of whom were of course present. I therefore embrace this method of laying the matter before the public, and now call upon your lordship to do your duty as I have done mine. Let me, however, in conclusion, tell your lordship that your conduct towards me—your wanton and unjustifiable conduct, in endeavouring to impugn my veracity—will not weigh with a discerning and reflecting public. But it may probably have a tendency to check those who possess less moral courage than I fortunately do, to step forward to expose abuses, which it is your duty to attend to, and to correct. Rare, indeed, is the individual, particularly

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sentation of the rector and Mr. A'Beckett, he was indueed to expunge it, inasmuch as he was told that it might subject him to an action for libel, as it related to the children of other parishes. I did not press Dr. Lee to state the precise words he had employed, because I should be sorry to expose him or any other person to LEGAL PERSECUTION for telling the TRUTH; but he admitted that it was a passage of a most unfavourable nature as regards the health of the children generally."

"* I would ask whether Mr. Lawford did not accompany certain Members of the Board of Governors to the Poor Law Commissioners, and there meet the Hon. Frederick Byng, an active member also of the Board, and since elected churchwarden, who is said to have held frequent communications with the commissioners; and whether at the interview, the object of which was to prevent the commissioners from coming into the parish of St. James', and taking the care of the poor under their board, it was not stated that the determination of the commissioners must necessarily depend in a great measure upon the result of the inquiry then pending?"

among professional men, who will venture to run the risk of having his veracity questioned by a Secretary of State—in the House of Commons too, before the whole country—where he is not present to reply to the assertions that may be made, and to such assertions as those which your lordship has applied to my letter, and which I think I may without any assumption fairly say were not entitled to be made. I have lived long enough and been long enough in my profession to be well known. I have filled many responsible stations, and am at this moment a Teacher of Anatomy and Physiology and Surgery, and the Senior Surgeon of a Public Hospital and of the Asylum for Female Orphans. Assured, as your Lordship was, of the disinterested nature of my application, it was surely entitled to have met with a different reception. I have ever held, and I should have thought that your Lordship would, from the known principles of the family of which you are a descendant, have also held the opinion that—

'SALUS POPULI SUPREMA LEX,'

and that you would have acted in accordance with that axiom, and have been anxious at least to have shown courtesy to one who enabled you so fully to manifest the sincerity of your professions, and your desire to establish a good government in all situations placed under your control and authority, and so seriously entrusted to your care.

"The evil I have pointed out is one of considerable magnitude—it is shocking to HUMANITY—detrimental to the interests of SOCIETY—and injurious to the STATE. All the best feelings of our nature call aloud for attention to the condition and treatment of these poor children. If such a system is to be perpetuated, then indeed farewell to vigour and health—farewell to industry. The strength of a country depends upon the vigour of its population. Political economists will not dispute the truth of this observation, and in recommending this subject to the serious considerations of the Legislature, I take my leave of your lordship.

"I have the honour to be,
Your lordship's most obedient servant,
"T. J. PETTIGREW.
"Saville Row, April 19, 1836."

Was there ever such a caricature of a court of justice as the above? We venture to say, there never was, in any country in the civilized world save this. Such a burden as this court must have been, such a judge as the coroner, whoever he was, to allow such an outrage on decency and common sense, as described in the preceding extract. Either the unfortunate children were mismanaged or maltreated, or they were not; but in either case, the person who sat as judge, ought to have acted decorously and impartially, and put an end to any clamour or indecency which perverted a full, fair, and honest investigation of the matter before him.

We unhesitatingly assert, that there is not a single respectable member of the medical profession, placed as coroner, who would not, from the preceding evidence, have quelled all clamour and interested popular feeling, and have protected Mr. Pettigrew from the unparalleled insults offered to him.

Motives of humanity alone impel us to notice this pamphlet fully; and we feel convinced, that it will excite no other but feelings of indignation in the minds of our readers, both at home and abroad. We know nothing of the parties concerned, and can have no personal feeling on the matter, except a sincere desire to benefit the interests of humanity and medical science.

The London Medical
AND
Surgical Journal.

Saturday, May 7th, 1836.

IGNORANCE OF THE PUBLIC REGARDING MEDICAL AFFAIRS.

WE proceed in tracing the origin of some of the causes of ignorance amongst the great mass of mankind respecting medical affairs. We have traced some of these causes to the apathy of the government respecting these matters, to the corrupt state of our medical corporations, and the disadvantages a talented medical man labours under in the great difficulty he experiences in making his talent known to those who alone are likely to assist him—those constituting the public. We now come to the consideration of another very important, and, we are inclined to consider, the main cause, of the low station the science of medicine has been kept in, considered in a national point of view, in this country. We allude to the apathy of the members of the profession themselves. Until the establishment of the first heb-

domadal medical journal in this metropolis, medical men really knew scarcely anything of the ongoings of our corporate bodies, and what is more lamentable, seemed to care less. Abuses of the vilest description, which had grown venerable by their antiquity, and secure by the silence thrown around them, were all at once exposed in their naked atrocity to the eyes of the profession. At first, we are willing to allow, the members of it shewed a becoming spirit, and a determination to resist further inroads on their rights and liberties; but this determination soon ceased to act, and they sunk again into that apathy, which until the present has beset them like an incubus. There has been a want of union amongst our medical brethren, and hence nothing great in the way of reform has been accomplished; when we say nothing great, we mean of that decided character which, did the members of the profession act more in unison, must have been effected. Hence, too, we have had no representative in Parliament; for it is only within a year or two that we have been able to muster even *two* members devoted to the interest of the profession; hence the wrongs inflicted on the general practitioner, the corruptions in our corporations, the injustice of the self-elected to the great mass of the profession, have never been exposed within the walls of Parliament, and have therefore never met with redress; hence it is, too, that the public have known nothing of these matters; and hence it is that in a national point of view our science has never been considered in its proper light.

We are not friends to great agitation, but wholesome agitation is necessary to keep the water of the medical ocean pure; without it it breeds, as has been proved abundantly, the most noxious reptiles, and engenders the most noisome effluvia. It must be by making our grievances known, and by repeating them with a persevering and unwearied determination, that we shall get them redressed. We will trust that our representatives in the House of Commons will lose no opportunity of exposing the hardships inflicted on the general practitioner; we trust that the general practitioner will lose no opportunity of forwarding petitions for reforming the abuses, that shackle and depress the energies of the "lower grade!" It is by these means that iniquitous laws, such as that which has lately been passed for the election of medical officers to the poor, can be repealed or prevented; and it is by such means that the people will be no longer apathetic and ignorant respecting these matters, but will assist in their removal, and have a respect for that profession at present so unhappily, and so unworthily depressed.

METROPOLITAN UNIVERSITY.

We believe it is now generally rumoured, and believed, even by the corruptionists themselves, that the charter of the New University will not afford privileges to any particular institutions. The universal burst of indignation which arose when it was hinted that such privilege was to be granted, has had the effect of showing the framers of the charter, how they might expect it to be received. Those who before anticipated, nay boasted, of being numbered among the future privileged, have now struck on another cord, and play with great dexterity upon it. They have seen their fondly cherished hopes annihilated, and they now say, that such privilege never was intended to be granted, and that superior education alone will raise one candidate for honours above another. The fox could not get the grapes, and he contented himself with condemning them as sour! We know that these monopolists are disappointed, because we know the exertions they made to obtain these privileges, however much they may endeavour to disguise their chagrin. When this privilege was first rumoured as likely to be granted, we shewed its injustice, its utter want of every principle of equity, its

depressing influence on the progress of knowledge, by allowing of no fair competition—the only fair one, indeed, that could be allowed, that of industry, talent, and acquirement—we never ceased to deprecate it, and we are vain enough to believe, we may have had some influence in preventing the passing of such an iniquitous law.

THE NEW POOR LAW CONTRACTS.

MEETINGS have been held in several counties for the purpose of petitioning Parliament against the New Poor Law Contracts; and in the reports of those proceedings which have reached us, we are glad to find an unanimity of purpose, and a decision of action in those composing the meetings, which must be effectively beneficial. But whilst we congratulate those who have been instrumental in forwarding these proceedings, we call upon other counties to follow the example of Buckingham and Warwick and Worcester—so that, in fact, the medical strength of the whole country may be as it were in arms against the common enemy—against that atrocious enactment which would sink the profession into a low underbidding trade.

Agitation, produced by such meetings, and petitions originating from them, is that which, in another article in this week's Journal, we designate as wholesome and beneficial; and none but the bitter enemies to the profession can condemn it—it is this species of agitation which links medical men together in the common cause; and effects by that union, objects which could not otherwise be obtained. We fear not for the result, if the medical men of this country be firm and united—they must have redress.

But whilst medical men in the country are giving expression to their sentiments at these meetings, and by these petitions, surely those residing in London cannot be altogether unconcerned in the matter—and we think it would show only a proper degree of the *esprit du corps* for them to assist in the attainment of the object sought for by their brethren in the country. For this purpose they should hold meetings and forward petitions to Parliament. We trust they will not be found negligent and unconcerned respecting so important a matter.

LONDON MEDICAL SOCIETY.

Monday, May 2, 1836.

DR. WHITING, PRESIDENT.

Croup—Treatment.

MR. STABLES exhibited the preparation of a larynx and trachea in which a false membrane had been formed. The patient was a child fourteen months old, and at the breast. Last Saturday week it was first attacked with the premonitory symptoms of croup; a powder from a druggist was all that was administered until the middle of the following Thursday, when Mr. Stables was called in; there was then decided symptoms of croup; the usual treatment in such cases was actively employed—emetics, leeches, calomel and antimony, and the warm bath, but without affording any relief; and the little patient died on the Saturday following—the eighth day of the complaint. The false membrane was found to occupy the whole of the larynx and trachea; there was also great redness of all the air-tubes; the bronchial tubes were filled with a muco-purulent fluid; there was also great congestion of the lungs. The mercury was given in this case to some extent; two grains of calomel and a quarter of a grain of tartarized antimony were administered every two hours on the first day—on the second, every hour; mercurial enunctions were also used. Was not this an early age for inflammatory croup to come on?

Mr. CLIFTON had seen cases of croup of the inflammatory adhesive kind, as early as the third month; he thought it probable that the reason very young children did not suffer from this disease arose from their being more carefully nursed, and less exposed to the contagion, than those more advanced in life. With respect to the treatment, he knew that the application of blisters was not generally considered beneficial; but after depletion he had, he considered, seen them very serviceable, when applied as counter-irritants in the neighbourhood of the affected part.

Mr. BRYANT thought the inflammatory adhesive croup exceedingly uncommon before the second or third year; he had never traced its existence before that age. With regard to the treatment, he thought it necessary to affect the circulation by one bold abstraction of blood; but he thought continued bleedings, because the child still laboured under the symptoms of croup, was bad practice. He had been lately called to see a child three and a half years old, la-

bouring under all the symptoms of croup; he took six ounces of blood from the external jugular vein, and all the symptoms immediately vanished. He had seen several cases of a similar kind. He preferred the abstraction of blood in this manner, to removing it by leeches, which latter was a slow and less effective mode.

Dr. WHITING thought the large abstraction of blood in inflammatory croup had killed more than it had saved, the power and energy of the system being by such proceeding so much depressed that the constitution would not rally, and patients were suffocated, from want of power to exert the muscles of respiration. He thought that calomel and antimony rapidly thrown into the system, was the best plan of proceeding. Perhaps an emetic dose of the antimony would better first be administered—the warm bath, also, when indicated; he thought that he had seen colchicum do good. He thought that by whatever means the circulating system was depressed, it did not matter. That man was decidedly the best practitioner who subdued inflammation with the least loss of blood. This held good particularly with respect to the diseases of children. Would the operation of tracheotomy diminish the chance of recovery in cases of croup? or, was it not performed more frequently, for fear of the odium that might attach to its failure? The first was the reason, he presumed, for its being seldom resorted to. He had ordered it to be performed in a case of croup supervening on scarlatina, in which the glands were also considerably enlarged; the child began to breathe much better the moment after the operation. This was one of the worst cases he ever saw. The operation was performed at a late period of the disease.

Mr. CLIFTON thought tracheotomy could only be successful when performed after the subduction of the inflammatory symptoms. He thought that the expectation of bringing up the false membrane by vomiting was a vain one.

Mr. BRYANT thought the operation was generally delayed too long. He thought that after a certain period it would be useless.

Mr. MERYON had found, in a case in which stimulants were applied, after the employment of antiphlogistic means, the patient did well.

Mr. EALES inquired whether inflammation of the trachea and larynx in children was a different disease than when it occurred in adults, in the first or false membrane being formed, but not in the second.

Some gentlemen seemed to consider croup specific inflammation; whilst one gentleman seemed to think that, as the fluids in children contained more lymph than those in the adult, that adventitious membrane might more readily be formed.

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 30th, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Case in which the Gall Bladder was filled with Pus.

DR. JOHNSON related the following singular case:—A chemist, lately residing in Piccadilly, consulted him first about eighteen months or two years since, complaining of all those varying and ever variable symptoms which have led him (Dr. J.) to style the affection the "Protean Malady." One symptom, however, was always present whenever he presented himself; and Dr. J. attended him until he died, a few days since; this symptom was a deep seated pain in the region of the liver—that organ, after the most careful examination seemed to be free from any kind of disease. About three weeks before he died, he called one morning on Dr. Johnson, with a remarkably changed countenance, indicative of much suffering; his pulse was quick, and he had had a rigor, the pain in his side was excruciating; leeches were immediately ordered to the side, and he was sent home to bed. Sixty or seventy leeches were applied before he obtained relief; he had repeated rigors, with fever, symptoms of dysentery, attended with frequent discharges of blood from the bowels—these symptoms increased in severity, and in the course of three weeks he died. He was attended by Drs. Johnson and Bright, and Mr. H. Johnson—the two latter gentlemen considered that an abscess had formed in the liver. Dr. J. could not make up his mind respecting the nature of the disease. It appeared that for five years before he consulted Dr. J., the patient had been frequently troubled with all the symptoms of gall stones—but not since then. At a *post mortem* examination, immediately on opening the abdomen, a globular tumour was detected projecting from under the edge of the right side of the liver, full of pus. Dr. Bright and Mr. Johnson immediately exclaimed, "here is the abscess, our prognosis is confirmed." On dissecting further, however, the liver was found perfectly healthy—and the globular tumour was, in fact, the gall-bladder filled with pus and biliary calculi in various stages of formation—the cystic duct was found completely obliterated—the gall bladder was much enlarged in size, and had contracted adhesions with all the surrounding parts; it was found difficult to separate it from the liver; the liver was perfectly healthy, except that the pori biliari were enormously enlarged—the intestines were perfectly healthy. Dr. Johnson was inclined to explain the phenomena observable in this case, in the following way. He considered that at a former period biliar

calculi had obstructed the cystic duct, producing inflammation, which had annihilated the calibre of the duct—the irritation of the stones in the gall bladder brought on chronic inflammation, pus was secreted and distended the cyst to the enormous size which was presented. Could the absence of cystic bile produce all the phenomena of dyspepsia which the patient laboured under? His bowels had been sometimes constipated, sometimes exceedingly irritable—the fæces always contained bile. In answer to questions—it was stated, that the patient was about 35 years of age—the ductus communis choledochus was not much enlarged—the enlargement of the vessels was in the substance of the liver itself—the coat of the gall bladder was in some parts in a state of ulceration, so as to communicate with the liver, though the pus had not escaped—in other parts the coat was exceedingly thick.

Mr. QUAIN thought it might be a question fairly discussed—whether the vessels in the liver might not be enlarged for the purpose of forming a reservoir for the bile.

The adjourned debate respecting the Impurity of the Thames Water, was then resumed.

Dr. LEONARD STEWART thought that sufficient rain water might be collected from that falling from the clouds, if means were taken for that purpose, for all the purposes of drinking, &c. In the island of Bermuda, all the water used by the inhabitants was obtained in this manner.

Dr. GRANVILLE thought that some sort of evidence might be gained of the effects of impure water, by noticing the prevalence of any particular disease, at a time when water was more used than at others. He had been connected with a dispensary for children ever since 1820, at which many thousand patients annually obtained relief. He had noticed during the middle and latter part of the summer season, to the month of October, that diseases of the alimentary canal were much more prevalent than at other times. The water companies say, that at this particular season—"the water is not in a fit state to serve the inhabitants." Dr. G. thought this some evidence of the prevalence of the diseases being in some degree referrible to the use of the water. He believed the only remedy that could be employed, which would be at all effectual, would be that which it was intended shortly to put into practice, viz., that of running a sewer along each bank of the river, for the purpose of receiving the contents of the various drains, &c. This was to be collected and employed for manure.

Mr. URE will read a paper at the next meeting, on Cancer, &c.

The Society will continue its Meetings during the month of May.

MEDICO-BOTANICAL SOCIETY.

Wednesday, April 27, 1836.

—— ILIFFE, ESQ. IN THE CHAIR.

MR. ILIFFE exhibited the following specimens:—

Bark of Colliguaja (Chili).
Arancaria Exelsa.
Chiramya Seeds (Peru).
Bark of Paraguay Tea.

Composition of Franks' Specific.

Dr. SIGMOND related that by the kindness of Mr. Battley he had been experimenting lately in that gentleman's laboratory, for the purpose of ascertaining the composition of Franks' Specific. It is well known that when the balsam of copaiba is mixed with the alkalies, potash, soda, and ammonia, a kind of saponaceous compound is formed. When it is triturated with calcined magnesia, a sort of paste is formed, which can be divided into pills. It was found that when a small quantity of proof spirit and spirit of nitre were added to this paste, and afterwards filtered, a liquid was produced, in every way similar to that sold under the name of Franks' Specific. Dr. Sigmond had tried it in some few instances, and its specific action was, as far as could be judged, precisely the same as that of the quack nostrum. In large doses, Dr. Sigmond observed both balsam of copaiba and Franks' Specific had been known to produce salivation to a considerable extent.

Mr. JOHNSON read a paper on the Physiology of Plants, after which the Society adjourned to the 11th of May; on which evening Earl Stanhope will deliver his annual oration at the Theatre of the Royal Institution, Albemarle-street.

LONDON UNIVERSITY.

April 30*th*, 1836.

THE annual meeting for the distribution of prizes to the medical class was held yesterday, Sir C. Lemon, Bart., in the chair. After the secretary had read the regulations under which the prizes were granted, Dr. Turner read the report of the medical professors, from which it appeared that the medical school was in a very prosperous condition. This appeared from a statement of the number of students at the different sessions since the commencement of the establishment. In the session of 1828 and 1829, the number of students was 193; in 1829 and 1830, 284; in 1830 and 1831, 276; in 1831 and 1832, 248; in 1832 and 1833, 293; in 1833 and 1834, 353; in 1834 and 1835, 373; and in the present session, 424. This latter would also meet an increase, as the botanical class, which had previously commenced in October, would not open until May. The number of patients admitted to the hospital in connection with

the university during the past year was 5,553, and the sum of 5537*l.* 10*s.* had been received as admission fees from students. The report concluded with stating that the conduct of the students during the past year had been decorous, and that the essays and examinations had, on the aggregate, been better than those of the preceding year.—The names of the successful candidates were stated as follow:—

Chemistry.—Dr. Turner, professor: Gold medal, J. W. Agnew, Islington; first silver ditto, F. Wakefield, London; second ditto ditto, G. A. Parker, Warwickshire.

Medicine.—Dr. Elliotson: Gold medal, W. Mackenzie, Clifton; first silver ditto, E. Edlin, London; second ditto ditto, W. Coatesbinks, Durham.

Obstetricy.—Dr. Davis: Gold medal, W. Moorhead, Dungannon; first silver ditto, P. B. Ayres, High Wycombe; second ditto ditto, W. Hay, London.

Anatomy and Physiology.—Dr. J. Quain: Gold medal, W. Weston, Sedelscomb, Sussex; first silver ditto, O. Copland, Chelmsford; second ditto ditto, H. Weeks, Barnstaple.

Practical Anatomy.—Mr. Richard Quain: Gold medal, J. T. Darvill, London; first silver ditto, W. Moorhead, Dungannon; second ditto ditto, E. G. Baron, Hull.

Zoology and Comparative Anatomy.—Dr. Grant: Gold medal, W. Moorhead, Dungannon.

Materia Medica.—Dr. A. T. Thompson: Gold medal, W. Coatesbinks, Durham; first silver ditto, E. J. Herickseu, London; second ditto, J. W. Agnew, Islington.

Medical Jurisprudence.—Dr. A. T. Thompson: The prize, "Russell on Crimes," superbly bound, Matthew Moorhouse, Huddersfield.

Surgery.—Mr. S. Cooper: Gold medal, Philip B. Ayres, High Wycombe; first silver ditto, John Firth, Congleton; second ditto, Robert Fothergill, Bedale.

The Chairman, in conclusion, congratulated the meeting on the present prosperous state of the institution, observing that this was the anniversary of the day on which the first stone of the building in which they had met, was laid. After votes of thanks to the council and officers, the meeting broke up.

KING'S COLLEGE.

April 30th.

The annual meeting of shareholders was held yesterday in the theatre of the College, Somerset House. Amongst those present were, the Bishops of London, Winchester, and Llandaff, the Dean of Salisbury, Aldermen Thompson and Winchester. The chair was taken by the Archbishop of Canterbury.

The report, which was read by the secretary, shewed that an increase of pupils had taken place in each of the classes; the total in Easter, 1835, being 591, while in the Easter of the following year it amounted to 632; that considerable alterations were making in order to meet the increase, and with this view the entire of the basement story was allotted for the accommodation of the junior students. The rents resulting from the letting of apartments amounted to 430*l.* per annum, which sum was appropriated to pay off a debt of 3,500*l.* incurred in necessary improvements; and there was a sum 1,500*l.* in the hands of the treasurer, over and above all outlay. The report was unanimously adopted.

The Dean of Salisbury, in terms of high eulogy, proposed a vote of thanks to the members of the council, which was seconded by Mr. Alderman Winchester, and carried unanimously.

The Bishop of London, on the part of the council, returned thanks. He said they had their best reward in beholding the flourishing state of the college, and its gradual progress to ultimate and certain success—a success which was in a great degree secured by the invariable attention of the professors, and their unceasing assiduity in advancing the interests of the institution. (Hear, hear). He felt convinced that the college would receive the support of every man who respected religion and morality, and had the interests of the church at heart—for it was by such institutions the church was to be supported. (Hear, hear, and cheers.)

Votes of thanks were subsequently proposed to Mr. Alderman Thompson, for his attention to the duties of treasurer; as also to the Archbishop of Canterbury, as visitor of the college.

His Grace returned thanks. The affairs of the college had been so well attended to, and its interests so securely guarded, as scarcely to require his presence as a visitor. (Hear, hear, and cheers.)

The meeting then separated.

As a proof of the successful progress of this Institution it is right to mention, that Mr. Green has just resigned his professorship of surgery.

NOTICES TO CORRESPONDENTS.

W. H., Northwich.—The disease may be purely nervous, or may terminate in diabetes. The patient ought to avoid every species of aliment which increases his peculiar symptoms. The rules of hygiene ought to be strictly observed. Tonic and alterative medicine will be useful.

An Inquirer.—In doses of one-twelfth of a grain morning and evening, the alvine function being regular; and after a week or ten days, one-twelfth three times a day.

Mr. Bateman and *Dr. Hancock* next week.

THE

London Medical and Surgical Journal.

No. 16. SATURDAY, MAY 14. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE IX.

Remedies for Lymphatic and Glandular Disorder.

Whatever theory we may adopt on the subject of tumour formation; whether, with Mr. Abernethy, we are satisfied that an organized origin explains their source and circumstance — that is, that coagulable lymph is successively thrown out, and new vessels become formed;—or whether we may object to the simplicity of this statement, on the ground that the structure of which a tumour is composed is not seldom very different from the parts that seem to give origin to the enlargement; certain it is, that both the secernents and absorbents of the parts implicated act in an abnormal manner—that tumours of all species are, in other words, manifestly disorders of the absorbents; and the same, in fact, may be predicated of all irregular formations, from the small tubercle of the lung up to the fungoid excrescence, or sarcomatous growths of enormous extent and magnitude; and I believe it will be found that these morbid changes implicate, to say the very least, those parts or organs in which absorbing agency is most conspicuous, and that they happen to those individuals in whom the lymphatic temperament is, *ab-origine*, the prevailing disposition of the system generally.

To go into the pathology of these various changes from healthy conditions, were to proceed far beyond the intended limit of these preliminary discourses; indeed, a great deal of what is necessary to advance in exposition of such changes is more properly the province of surgical pathology; but when treating of organic maladies, I shall, of course, have to revert to these points; for example, consumption of the lungs cannot well be canvassed without an inquisition into the nature, origin, and particular seat of tubercle. My immediate or present design is principally limited, however, to pathological views of absorption, generally; and, having thus ran rapidly over its normal and abnormal peculiarities, I shall now proceed to state a few principles in respect to the management of lymphatic maladies.

I may remark, in the first place, that different portions of the frame are obviously open to their respective excitants; a postulatum which, if admitted—and it must be admitted—at once interferes with the rectitude and legitimacy of those assumptions that go upon the ground of universal excitability. True it is, you cannot urge on one portion of the organization without indirectly at least affecting the whole frame; but when I find I raise one series of actions at the same time and by the same process, that I depress others I am led legitimately to infer the peculiarity of susceptibility now contended for.

What do we mean by saying that iodine absorbs tumour—that digitalis takes up the effused fluid constituting dropsy — that pressure lessens morbid growths? Certainly this—that some agencies operate, not exclusively, but more especially, upon those organs and parts I have been describing under the denomination of absorbents.

I cannot better continue this preliminary view of the absorbent faculty, and treat of the modes of cure its morbid condition demands, than by reading you an extract from a work by Mr. Townsend, a work which, although faulty in many respects, too full of hasty generalizations and deductions, and too partial to those pneumatic principles which were beginning to obtain at the time in which it was written, is, nevertheless, happy in its style, often correct in its pathology, and pregnant with practical intimations of a useful kind to the student.

"In cases," says our author, "of defective action of the absorbents, the first attention must be paid to diet, which should be mild, yet generous, consisting of such

articles as are easy of digestion, with a moderate quantity of spice and wine. Further to assist the digestive powers of the stomach, and the general action of the absorbent system, recourse must be had to air and exercise. It is Boerhaave who has left us this direction, 'Tum ut optime digeri queant, condimentis, potu vinoso, *exercitatio, aere* procurandum.'

"By experience, all medical practitioners have been convinced that health and vigour depend upon the air we breathe; but no one, till Dr. Beddoes wrote on the subject, was ever able to explain *what* the air contributed towards heat and life*. They had observed that the blood acquires a florid colour in passing through the lungs, precisely as when venous blood is exposed to the open air. They had remarked that the blood of those persons who used most exercise was the most florid—that even the blood of horses, after long journies, was more florid than when the animals had been confined in stables; they had observed that the blood of a cachectic woman is watery and of an obscure red, but that by increasing the blood's motion with friction, exercise, and medicine, it recovers its bright red colour. This change they attributed to its passage through the lungs, where, according to Galen and other of the ancients, it received some spirit from the air imparting vital energy to the arterial blood. Boerhaave, from whose Institutes these quotations are taken, also asserts that the lungs receive something from the air, of the nature of which he confesses himself unable to discover; but, in order to account for the red blood in fish, and the redness of the *punctum saliens* in an egg, he observes that the gills of fish supply the office of the lungs, and that the air penetrates the egg to support the life and growth of the included chick.

"Now, exercise increases respiration, and promotes the oxygenation (decarbonization?) of the blood, and that by this it gives vigour to the system, and *excites the action of the absorbents.* It is the circulation of the blood that distributes vital energy to every part; for in syncope, and even in death, when death is a consequence of suffocation, all the vital organs remain perfect and entire; but, for want of distribution of vital energy by the circulation of the blood, neither the heart, the lungs, the stomach, nor the brain, can perform their office; *there is neither secretion nor excretion*, and all action, both vital and voluntary, ceases.

"In those cachectic diseases in which the circulation is languid, in vain will you pour in nutriment, unless, at the same time, by air, by exercise, and proper medicines, you promote the circulation, and, consequently, *the secretion with the vital energy of the absorbents.* Muscular motion, by compressing the veins, sends the blood with increasing vigour to the heart, which strongly stimulates that organ; the respiration is much quickened, the blood becomes highly oxygenated in its passage through the lungs, and in its return excites the heart to more powerful exertion, by which the whole arterial system is distended. This stimulates the vessels to contract with vital energy, the action and reaction are great, the contractions strong—all is activity—all is vigour." And our author adds, that of all exercise, that of horse-riding is the most efficacious, and adduces the authority of Sydenham and others in favour of this species of gestation, which, by the celebrated individual just named, was regarded, in some cachectic disorders, as a specific, especially in pulmonary affection. As a curative, and even preventive of disorder, riding on horseback is highly useful; but there is nothing which may be substituted for walking—this is the only mode by which all parts, and all the vessels of the body are brought into action. The value of walking is not indeed duly appreciated; it particularly exercises the secerning and imbibing faculties, and thereby purifies from effete matter, and adds to the substance of healthy organization. A physician of Leamington has, it is said, gained great notoriety by insisting upon his patients walking, even when they urge their inability. He is called, I understand, the Leamington Abernethy; and the real individual of that name, who for many years was my next door neighbour used to say, "If I were a gentleman, Dr. Uwins, I never would get into a carriage"—meaning, of course, that if he could spare time to walk he never would ride. But, of exercise I have to say more at another time.

Friction, in some degree, answers the end of exercise, by diffusing vital heat and promoting the circulation of the blood. The benefit to be derived from this is evident in horses, who never enjoy high health when confined to stables, unless they are well combed and brushed.

Bandages, by pressure, assist weak vessels and promote absorption.

But (says Mr. Townsend) the most effectual stimulant in all cachectic cases is steel. This was the favourite remedy of Sydenham and Boerhaave. To this Dr. Smith owed his celebrity. Van Swieten says, "I have met with innumerable cases in which cachexy has been cured by this remedy alone after mild evacuants had cleared the first

* I shall afterwards have to enlarge upon this subject a little more, and then to say that this "*what*," the discovery of which our author attributes to Dr. Beddoes, is rather the discovery af Crawford; but, in point of fact, the matter which is ejected from, and taken into the system by the lungs, is still, in some measure, an unsettled problem.

passages from mucus, filth, and undigested food;" and he particularly assures us that he never failed to cure cachectic virgins by steel filings, provided they consented to take air and exercise, and to avoid warm liquids.

"I cannot conclude this article," continues Mr. Townsend, "without making mention of electricity, which, as a powerful stimulant, has not only reduced swellings from sprains, and promoted the speedy absorption of considerable glandular and scrofulous tumours, but is known to attenuate fluids, and to excite strong action in the animated fibre."

Had our author been writing in the present day, he would have extended his encomium from common electricity to that modification of it which is called galvanism—for I have seen, in trials of my own, this agent to be wonderfully efficacious in exciting absorbent action. I recollect one particular case, in which, from particular circumstances, I was my own manipulator; and upon placing the conductor over the region of the liver, I very shortly saw a jaundiced appearance in the white of the eyes—an effect unquestionably brought about by the bile being absorbed after it had been secreted by the liver, and thus reconveyed into the circulation.

We must suppose, too, an increase of the secretion of bile; for, that the secretory vessels are stimulated by galvanism is equally evident as is its influence upon the absorbents. The experiment of Dr. Wilson Philip on rabbits exemplifies this double influence in a very satisfactory manner. He takes two rabbits and divides the eighth pair of nerves in each; he sets one by, and no further interferes with it; in this, after a short time, a mucus collects in the air-vessels of the lungs, and the animal dies, as if suffocated by bronchitis. To the divided end of the nerves in the other animal he adjusts a galvanic apparatus, and no effect of the kind takes place in the pulmonary organs, while the gastric secretion is set going with rapidity, and the stomach of the animal digests its food. I ought to add, that in the first, digestion is arrested at the same time that this pulmonary mucus is collecting.

Had Mr. Townsend, moreover, written after the recent experiments of Magendie, he would readily have availed himself of them, in adding moderate and judicious depletion as one of the most powerful means we possess of exciting absorption. I have already referred to these experiments, more, I believe, than once, since they have always appeared to me very important and very satisfactory in illustration of the principle, that by removing a load from the circulation, you promote imbibing powers. I will here introduce the words of Magendie when he is remarking on this particular. "I endeavoured," he tells us, "to ascertain by experiment, the influence upon absorption, which should be excited by a state of fulness in the sanguiferous vessels. Having injected into the veins of a dog a certain quantity of water at the temperature of 40 degs. (105 of Fahrenheit), I introduced into the pleura a solution in alcohol of nux vomica, the absorption of which was proved by its speedy and powerful effects. The effects, however, were not so immediate as had been the case when the veins were not thus previously injected; and, in repeating the experiment with a still greater quantity of water in the veins, I found that the poison was still more tardy in its influence; at length, having thrown in as much water as it was possible for the animal to receive while it continued alive, the poison, which in ordinary circumstances would have operated in less than two minutes, had not affected at the end of half an hour.

"The condition," our able physiologist continues, "of the blood-vessels, in reference to their plenitude, was shewn by these experiments to possess a considerable influence on their absorbing power. What, then, it became interesting to ascertain, would be the effects of an opposite state of these vessels? This was likewise put to the test by the following experiment:—A dog having been largely bled, the same quantity of nux vomica was thrown into the vessels, as in the former experiments, and the poison manifested itself in a little more than half a minute, while, under ordinary circumstances, it would have required two minutes to produce the effect.

"The veins of another dog were opened, and a given quantity of blood having been withdrawn, it was replaced by an equal quantity of water; in this case the absorption of the poison took place about the ordinary time."

While discoursing on the *modus agendi* of medicine, I shall also have to speak of emetics and purgatives as remedies which sometimes beneficially operate on the principle of promoting absorption, partly by commotion, as it were, but not seldom by depleting or unloading the sanguiferous vessels. In these instances, however, the effect is more remote and intermediate, and complicated, than it is in the case of blood-letting.

There are many other medicinals and therapeutic excitants, the influence of which seems mainly expended upon the absorbent faculty; and I may mention digitalis as affording an example of action upon different parts of the body with varied degrees of energy. This medicine, it is well known, will, when given in large quantities, take up, and often with astonishing rapidity, the fluid of dropsy; and at the same time that the imbibing power is thus excited, the arterial energy is often depressed. When considering the subject of some chronic maladies, as of hydrocephalus externus,

tabid disorders, anasarca after scarlet fever, and others, I shall have occasion to point out to you how this drug (digitalis), by thus operating with varied effect upon different organs or vessels, may be made to apply towards effecting radical amendment. You will recollect that I have already spoken of it as an anti-inflammatory agent; but I am disposed to think its great and distinctive effect is upon the absorbing faculty; its virtue in this particular, if I be not much mistaken in my estimate, is almost peculiar—but this is not the place for detail; and I will pass on to the mention of some other articles that seem especially—but all in their own particular way—to influence and affect the absorbing vessels.

Iodine has recently been employed for the purpose of remedying glandular disorder, and it is not seldom that its effects on these disorders are too unequivocally marked to admit of doubt or dispute; but it is a power that should be confined to careful and skilful hands. You will sometimes, unless you are exceedingly watchful, find yourself overtaken by this medicine in its several modifications acting too forcibly upon healthy organization, and thus producing more mischief than you are aiming to combat. But of this, also, more afterwards.

Chalybeate, or steel medicines, act conspicuously upon the absorbent faculty. I am no advocate for the heroic and almost empirical practice which has regulated the administration of steel, or rather iron, in every malady that appears to be at all marked by weakness; but I am, on the other hand, disposed to think, that from the membranous apprehensions which some too much indulge in the present day, the virtues of chalybeates are unwarrantably disregarded, and strengthening medicines, generally in too large a measure, reprobated: and I here just intimate, that steel is especially applicable in many disordered states, which will be hereafter alluded to, as implicating the lymphatic system, even when the prevailing diathesis is attended with topical irritation; for such local circumstance ought not in every case to constitute an objection to the free use of the medicinal referred to. Boerhaave, Sydenham, Smith, and many other of the moderns, whose statements may be confided in, were much more in the practice of administering chalybeates than the fashion of the present time would allow; and surely the constitution of our contemporaries cannot have undergone so thorough a change in so short a time, as to render now improper and dangerous what was but a few years since employed so safely, and with such marked efficacy. We may hesitate, indeed, respecting the explanation of chalybeate virtue, as given by Townsend, who says:—"Iron has a twofold effect, for as the natural vehicle of oxygen and the constituent principle of red blood, it strengthens the digestive organs, and thus excites the absorbents." I say we may not subscribe to this principle, because it is too chemical and pneumatic, and because the presence of iron in the blood is in too minute a proportion to give a *colour* to the theory; but we may subscribe to the fact of its invigorating agency, unbiassed by the doctrine of local disturbance.

It will have been observed, gentlemen, that, in these very cursory and general intimations, I have been mainly alluding to those disorders, and their counteractives, which principally make their appearance as evidences of the lymphatic temperament; but while I allude to the distinctive features of malady occasioned by or accompanying this temperament, I must repeat my caution against that expectation that young men are too apt to fall into, of finding every form of disorder so decisively characterized as the discourses of lecturers and the writings of authors would seem to imply. As the organization itself is complicated and mixed, as we cannot separate one part from another, excepting in the sort of ideal way of verbal description, so is it with this organization when it in any degree deviates from healthy condition;—a nervous disease more or less implicates the blood-vessels; the blood-vessels, even if they are not the same thing as absorbents, soon partake of absorbing irregularities; this irregularity again reacts upon the sanguiferous conduits and nervous fibrillæ; from functional irregularity, deranged structure imperceptibly steals on, and thus are all the designs of nosologists and nosographists put to derision when they attempt to seize hold of and retain marking and separating peculiarities.

I have already mentioned the defective principle of nomenclature that is manifested by the term cachexia, or bad habit, in order to designate the affections which attach themselves more particularly to the lymphatic and secretory system. But I may here remark, that the class of medicines usually called, for want of a less vague denomination, alteratives, is the class from which those medicinals are taken that we use in a sort of empirical manner in many of these distempers: and although our theories may fail to explain their mode of operating, their effects are often so abundantly proved by observation, as to oblige their employment.

The oxides of mercury act upon the absorbent faculty generally; but they have a kind of specific power over one especial portion of the glandular system. But, neither when this drug is employed so as to insure, to the full, its specific action, nor when it is administered in smaller quantities, do we infer its virtue as from a power of exciting the absorbents; it is, in the way and to the extent now usually prescribed, an anti-venereal or alterative medicine.

There are, indeed, other agents, which the humoral doctrines have sent down to us (and which we still use, under a conviction of their alterative efficacy over other and less peculiar kinds of cachexiæ), the action of which is still more obscure. Such are sarsaparilla and other vegetable substances, called by the vulgar "sweeteners of the blood," and to which even the initiated are not able to apply a much more legitimate or a much less vague denomination.

Even those medicinals, the effects of which seem still more clearly referrible to their virtue of taking up into the circulation extravasated fluid, act on one part with more certainty and decision than on another. I shall shortly have to shew you that hydrothorax, or dropsy of the chest, is alleviated or cured by digitalis with much more promptitude and certainty than ascites, or dropsy of the abdomen; and although there are some anatomical and physiological circumstances and reasons why this should be the case, independently of mere lymphatic excitation, we must admit that a great deal of the effect is referrible to a law which is not clearly traced out, beyond this effect*.

When I mention this or that article of medicine, or this or that power as influencing the function of imbibition, it will therefore be understood that the virtues ascribed to these powers are not always to be considered as immediate, or abstract, or uncomplicated.

Passions of the mind, whether exciting or depressing, are proverbially influential upon the absorbing faculty; innumerable instances in proof of which might be cited from writers both ancient and modern—both medical and moral. In these cases the influence would appear to be, for the most part, an extension of that which is primarily communicated to the sentient part of the organization; as when the fear of an operation suffices, in the course of one night, to disperse a tumour which was intended to be operated on the succeeding morning; or when the hairs of an individual are turned grey in a few hours, from the unexpected intelligence of the death of a beloved relation. These, and a thousand other accredited facts of a similar nature, I might record, in proof of the propriety and necessity of medical practice being so conducted as to take into account mental or sentient influences in those disordered states which would seem at first sight to have but a very remote connection with impulses made upon the feelings.

I had intended, gentlemen, to go a little further into the subject of mental impression this morning, but I find that I must defer the consideration of nervous therapeutics to our next opportunity, when I shall have occasion more especially to dwell upon the momentous fact, that the study and practice of medicine would prove feeble and inefficient indeed, were the science and art resolvable into the mere questions of—What is the disease? and what is the best drug for curing the disease?

* I remember it was once charged against the physician who attended the celebrated Charles Fox, that he had killed the senator by large quantities of fox-glove. Dr. Baillie, in condescending to rebut the accusation, averred, that during the whole illness he had not prescribed for Mr. Fox any digitalis at all; and added, that he limited his use of this potent drug to cases of hydrothorax, while the disease of Mr. Fox was ascites.

CLINICAL LECTURE
ON
CASES IN THE NORTH LONDON HOSPITAL.

DELIVERED BY DR. ELLIOTSON,
MAY, 1836.

Gastrodynia—Neuralgia.

THE first case that presented itself to-day is one of nervous affection of the stomach and neighbouring parts, attended with phenomena not very usually seen. I have seen one case before of

Rumination in the Human Subject.

You will remember probably my reading a case of an old lady last summer; several instances are also recorded in the chapter on digestion in my work on physiology. We did not see this man ruminate in the hospital, but the gentleman who sent him here had no doubt that he ruminated. I will read the case to you:—

Joseph Dalton was admitted March 8th, 1836. He describes himself as a cooper by trade; he has had pain in the left hypochondrium for the last three or four years; during the two first of which he had occasional remissions for the space of one, two, and even three months. The return was always aggravated. The pain at first used to come on about six o'clock P.M. after he left his work; then about four P.M.; then after his dinner; now soon after rising, but more generally after breakfast. He states that his fellow workmen call him "an old cow," as he chews his cud. On questioning him, the following facts were elicited:—Soon after dinner he felt a fluttering of the stomach, and a portion of his food rose up in his mouth with eructations, which at first he was in the habit of spitting away, but finding it was so continued, he began to remasticate it, on swallowing which a fresh portion rose. Should anything hard be swallowed, such as gristle, it kept rising

until that substance only remained, which he spat away. When he ate greens at his dinner it caused him to ruminate sooner, and that with a disagreeable taste, as also does cold beer, and that accompanied with increased pain; warm beer is not so offensive, but on the contrary makes him comfortable. Occasionally he has retchings if he takes fat meat, throwing up a quantity of oily fluid, sometimes of a greenish colour, which he describes as coagulating on exposure to cold. If the food be well masticated, or if he refrains from beer, he does not ruminate so quickly. Beef returns sooner than mutton; pork and bacon agree better with him. He has now paroxysms of pain during the day whilst at work, but they are more severe in the evening. The pain extends from the left hypochondrium through to the left scapula, and up the back; at other times down the spermatic cord to the left testis, of which the epidymis becomes knotty, swollen, and tender to the touch. This tenderness is much aggravated if he takes cold; when in pain, leaning firmly against a table or lying down relieves him. I saw the gentleman who attended him, who told me he had stopped the rumination by creosote; he ruminated whilst here only two or three times; and he threw the ingesta away instead of keeping them, as requested. The pains he was admitted here for were evidently neuralgic; we had nothing to do with the rumination. For these symptoms of gastrodynia I gave him nitrate of bismuth; it would have been absurd to have given him creosote; he had that given to him before; besides, I have found—

Hydrocyanic Acid, and Nitrate of Bismuth in Gastrodynia,

much more effective than creosote. He got well under a few doses of the nitrate of bismuth. He returned a few days after his dismissal, complaining of a little pain; he did not come into the house, but a little of the same medicine was given him to take away with him.

The next case, gentleman, is one of a curious character—*neuralgia*, which affection was subdued, and the patient became subjected to great cerebral excitement; first, irritation, then inflammation; then it was simple irritation. Again I will read the case:—

William Boucher, aged 33, was admitted January 19, 1836. He states himself as a plaisterer; of moderate habits; and that he has generally enjoyed good health. Last August he caught cold, and became affected with an inflammatory affection of the bowels. He was cured of this complaint, but during his convalescence, he was much troubled with pain along his lower and upper jaw, arising, as he supposed, from a carious tooth; this he had removed, but it afforded him only temporary relief. Many persons having decayed teeth fancy the neuralgia to arise from that cause, but it is not generally the case; persons may have neuralgia without carious teeth, and carious teeth without neuralgia; but it is always as well, if there is a *carious tooth in neuralgia*, to remove it, though it is not often effectual in subduing the disease. Soon after the abstraction of the tooth he felt a pain on the left side of the head, which appeared to commence round the ear, especially at its lower part, and extended to the forehead; the pain was of a dull aching character, never intermitting, and accompanied by a noise similar to that produced by the singing of a tea kettle. The pain is generally confined to this portion of the face, but sometimes extends to the right side of the face. You will find often in neuralgia that distant nerves are affected. Now, one of the best local remedies in this affection, where there is no inflammation, or organic disease, or diseased bone, is the application of the veratria in the form of an ointment. I have seen both this *veratria and aconitine in neuralgia* exceedingly serviceable; they are remedies not to be despised. We ordered this patient, therefore, to have rubbed in an ointment composed of fifteen grains of the veratrine, and an ounce of lard, twice a day. This is rather powerful; you can begin with a smaller quantity of the veratrine in general. On the 21st, the report is that the ointment did not give much pain, but communicated a tingling sensation; he feels the face somewhat relieved. On the 26th, the pain in the face was decidedly better, but he did not sleep well at night. On the 30th the pain was still much relieved; the application of the ointment caused tingling for about half an hour. On the first of February he was very much better, and slept well at night. Now you will observe that the application of the ointment caused tingling in the parts. Many persons cannot bear it unless it is employed in exceedingly small quantities, not more than two or three grains to the ounce of lard. Sometimes it tingles for an hour, the tingling commencing directly it is applied; sometimes it is two or three hours before the tingling comes on. The neuralgia was completely relieved, when on the 2nd of February we found him delirious, and talking very benevolently and religiously. His pulse was 64, weak and irregular; and at intervals his head was thrown back, and his chest and stomach thrust forward. He had a short dry continual cough; I hardly knew whether this resulted from morbid excitment of the par vagum at its vernix, or of the parts immediately about the bronchia. I thought it at first possible that the veratrine might have produced this state of delirium; it was, therefore, discontinued, and the parts washed. His pulse was very low;

we gave him stimulants, but the wandering still continued. On the 4th the report states that he had not slept all night, but had been walking about the ward quite delirious. In the evening his pulse rose to 88, and was full. He was still delirious, his bowels were confined, and he had a dose of calomel and a black draught. He was ordered ten grains of calomel at bed-time, and to be bled to a pound if necessary. He was not bled till the next morning, the 5th. After the bleeding five grains of calomel were given every four hours; a blister was applied to the back of the neck. He was bled again in the evening. On the 6th he was still better, but his pulse remained full. He was cupped on the temples to eight ounces. On the 9th he was much better; the medicine was omitted. In the afternoon he became very restless, and half a grain of muriate of morphia was given twice a day. On the 11th;—he was generally sensible every morning till about twelve o'clock, when he became delirious and required restraint: passed a bad night. On the 12th he was much better; from this time he continued better and worse for some time. We found it necessary to keep him continually under the influence of the muriate of morphia. We began with giving him half a grain twice a day. In the course of three weeks or a month, during which we supported him with broths, &c., the pupils became small; he still, however, continued delirious, and sometimes violent; but he afterwards only had a few wrong notions. He believed he had been taken up to heaven, and sent down again without his heart, lungs, and liver. These fancies, however, gave way under the continued use of the morphia; and he went out quite well on the 12th of April.

This is certainly a remarkable case; it is not altogether unusual, though, to see a patient complaining of pain in the head, and paralysis coming on and removing it. I remember a gentleman who had neuralgic pain of the supra-orbital nerve. I applied the veratrine ointment, and relieved him; but no sooner was the pain removed than he had paralysis of the abductor of the left eye, so that he saw double, and objects were confused; this arose, no doubt, from the subduction of the neuralgia. I treated him now antiphlogistically; when the paralysis was removed the neuralgia returned. One case in the hospital bears some analogy to this one, in being first nervous, then inflammatory, and then nervous again. When I first saw this man, after delirium came on, I thought it might have arisen from the use of the veratria—for it will sometimes produce blindness, giddiness, and all the symptoms of common narcotics, particularly if the skin be not entirely sound; and it is well not to use it when there is even a pimple on the skin: it might perhaps in this case have been the cause, though not directly, but in an indirect manner. The subduing the neuralgia, as in the other case, produced a new disease; it was therefore the removal of the disease in both cases, probably, that induced another of an opposite character. This case is most instructive, as shewing how *diseased states go from one into the other.* It is instructive, also, as shewing the effect of the *muriate of morphia, in delirium* not dependent on inflammation. This man took large quantities of it on the 8th of March: he began by taking half a grain twice a day. On the 10th he took it every eight hours; on the 12th, every six hours; on the 15th, three quarters of a grain every eight hours; on the 19th, a grain every eight hours; on the 22nd, a grain every six hours; on the 26th, a grain and a quarter; on the 29th, a grain and a half. On the 2nd of April, as he was much less irritable, we diminished the dose to a grain twice a day. It is, perhaps, right to begin with smaller doses than we did, in the generality of cases; but this, as well as other cases in which we have given this medicine, shews the absurdity of stopping at a certain extent because the medicine does not take the effect anticipated in those doses.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XV.

Gynæco-Physiology—Physiology of Woman.

The physiology of woman may be divided into four parts; 1, establishment of menstruation, or nubility; 2, utero-gestation, or pregnancy; 3, parturition, or delivery; 4, lactation, or suckling.

The term nubility is applied to that period of female life which is adapted to the performance of the generative function. The history of nubility comprehends four distinct periods: 1, puerile sterility, or infancy; 2, the establishment of fecundity, or puberty; 3, established fecundity, or periodical menstruation; 4, the cessation of fecundity, or menstruation, the critical age, or senescence.

Puerile Sterility—Infancy.—From the period of birth to the twelfth or fourteenth year, in temperate climates, the genital organs are not proportionably developed with the rest of the body; their functions and sympathetic influence are rarely perceptible, and very seldom exerted; so that there is scarcely any difference between both sexes until the age of puberty. Differences, however, do exist in their tastes, habits, manners, and especially in the voice, which is much sharper in females.

The diameters of the pelvis in the first years of life differ little in both sexes, and are nearly reversed, as the longest is the antero-posterior, or the transverse, and the pelvis has many of the characters of that of the male.

The uterus is about thirteen or fourteen lines in length in the new-born infant, and eighteen in a girl of ten years (Rœderer). Its function consists in the secretion of a tenacious mucus; and its neck is larger, harder, and more cylindroid than the body.

The tubes and ovaries are proportionably more developed than the uterus. The ovary is elongated, vermiform, red, and compact, without vesicles. It is eight or ten lines in length in the new-born infant; it is sixteen at the tenth year, and twenty at puberty (Rœderer). The vesicles of this organ sometimes appear during the first year; but generally not before the eighth or tenth. The tubes do not develop in proportion to the uterus and ovaries.

The vagina is capable of admitting a finger at birth, remains strait and wrinkled in infancy and childhood: it is two inches in length in the new-born infant, and four or six in the adult. It is straiter below than above, in infancy, and has a relaxed fold in the form of the palate at the superior part of its external orifice, which is the hymen; and this in later years becomes semicircular, and obstructs or contracts the external orifice of the vagina.

The vulva is small, uncovered by hairs before puberty; the great labia are thick, and projecting a little. The mons veneris is large and prominent; the nymphæ and clitoris are sometimes protruded beyond the external labia; and the mucous membrane is red or rosaceous, smooth, firm, and humid.

The gland of the infantine breast is about the size of the end of the finger, its tissue is red and firm, and resembles that of the thyroid gland; it often furnishes a lacteous or serous fluid in new-born infants of both sexes, and remains inert for some years afterwards. It is to be borne in mind that the female breasts are generally subjected to great injury by the pressure of stays, which are seldom made so as to allow space for the growth of the organs: they compress and waste both the breast and the nipple, obliterate the lactiferous tubes, render suckling extremely difficult, and cause a predisposition to abscess and excoriated nipples, thereby depriving the infant of the food intended for it by nature.

The genital organs in the human female do not undergo any remarkable change from the period of birth to puberty, except that their development is not proportionate, or very seldom so, to that of the rest of the body. It is from the twelfth to the eighteenth year that they acquire their normal condition and their functions. They now rapidly enlarge and become fitted for the function of reproduction. They remain in this state in unmarried women for years; but after one or two parturitions, they become augmented in size, and continue in this condition until senescence, when they decrease or assume their primitive state.

The ovaries form the germs, the tubes convey the vivifying fluid of the male, and then the impregnated ovum into the womb, in which it is nourished and protected for nine months, when it passes into the world through the vagina and vulva. The numerous anomalies of the sexual apparatus depend on defect, arrest or aberration of development, and on diseases anterior or posterior to birth, and will be described in the pathology of woman.

Establishment of Fecundity—Puberty.—The period of puberty will vary according to climate, education, and constitution; an elevated temperature, as in tropical climates, an excited imagination and a sanguineous temperament, accelerate it, and induce it at the ninth or tenth year; while cold, as in the polar regions, an inactive life, and a lymphatic temperament, do not permit it to arrive until the eighteenth or twentieth year. Moyer mentions a Swiss girl who became a mother at nine years of age. Even in the same country, differences in this respect occur. Foderé and other writers on medical jurisprudence mention many instances of this, and ascribe them to the altitude, temperature, and other localities of the districts. On the borders of the Mediterranean, girls menstruate very early; but at a distance from it, for example, in the department of the Ain, there are evident effects produced by the nature of the soil. "Thus," says Foderé, "on the borders of the marshy districts, puberty is late;" two individuals from these districts, in one of the Parisian hospitals, at the time at which he was writing, one eighteen and the other twenty years of age, displayed no signs of puberty; whereas, on the banks of the Soane, and in the south of France, it is not uncommon for boys of thirteen and fourteen to be the fathers of children begotten on girls of twelve and thirteen. In this country and in France it generally occurs from the twelfth to the fourteenth year. Girls have become puberous in France so early as the age of eight years and a half. (Velpeau.)

In high situations, exposed to cold north-east winds, boys do not shew signs of puberty till after eighteen years of age; this is even the case in places on the coast of the Mediterranean, if thus exposed, as mentioned by Foderé; and the period is still later in the north of Europe. But the influence of climate is more strikingly perceived in the puberty of girls than of boys: thus, menstruation, which is the sign of puberty in girls, begins very early between the tropics, sometimes so early as eight, nine, and ten years of age; whilst boys in the same climates are incapable of becoming fathers until they have attained to thirteen years; though Ballard, a French writer, mentions a case in which a female attributed her pregnancy to a boy ten years of age. In the peninsular region of India, in Java and the tropical islands, girls begin to menstruate so early as eight and nine years of age; in the temperate zone, the period is from twelve to fourteen; and in Lapland and Norway, menstruation rarely occurs before the twenty-first year of age; and when it takes place, the returns are at long intervals, and frequently only during summer. Heat has therefore a considerable influence in bringing animals, as well as plants, to a premature maturity. In the cotton mills of Manchester and Glasgow, which are kept at a high temperature, girls arrive early at a state of puberty: and, therefore, the occupation and condition of the female should always be kept in view, in giving evidence, when a question as to puberty is raised.

Habitation and pursuits in the country, simplicity of manners, frugal regimen, and the temperature of northern regions, retard the appearance of menstruation. An idle or luxurious life, high living, frequenting balls, theatres, and places of public amusement, the arts of imitation, as those of design, statuary, &c., music, the study of romantic and licentious works, the use of exciting liquors, habitation in populous towns and cities, and warm

climates, tend, on the contrary, to accelerate it. Every thing that warms the body and excites the imagination, accelerates puberty; and this explains the reason why girls in crowded towns and cities perform this function sooner and more freely than those residing in the country.

The most remarkable changes take place in the economy at this time. The body becomes more developed, the temperament becomes more sanguineous or nervous, the constitution becomes stronger and more vigorous. Many diseases cease spontaneously, as scrofula, rickets, tinea, ringworm, epilepsy, &c.; while others become developed, as chlorosis, hysteria, bronchocele, various inflammations, and hæmorrhages. There are numerous irritations in the different organs at the approach of puberty. The face and other parts of the body are often covered with eruptions. There is also an ephemeral fever, sometimes headach, hysteria, derangements of the respiratory organs, cough, laborious breathing, palpitation and inordinate action of the heart, epistaxis, hæmoptysis, hæmatemesis, hæmaturia, intestinal hæmorrhage, hæmorrhoids, chlorosis, dysmenia, amenia, amenorrhœa, dysmenorrhœa, menostasis, menoxenia, and many other disorders, which will be described in the pathology of woman. The moral and physical characters are modified; those which distinguish childhood are lost: the tastes of the girl are similar to those of a fully developed female; the passions are more powerful and durable, the moral and physical sensibility are greater, and the desire for marriage commences. The character of woman's mind is chiefly determined by the part she bears in relation to generation. Her destiny to be united to a husband, and to become a mother, is perceived in the plays of her infancy, and afterwards becomes manifest in the commencing struggle in her bosom, between her modesty and her inclination for the other sex, as is seen in her lovely blushes, often united with a noble feminine pride and reserve, until she meets the man of her heart, when all these feelings are succeeded by a full and unlimited abandonment of herself to the object of her affection. Conjugal love has speedily, however, to surrender itself to the stronger feeling of maternal affection, of the power of which we have many and the most extraordinary examples.

At the approach of puberty the feminine voice changes; but not so much as in the male. The pelvis rapidly enlarges; but it is not completely ossified or developed before the twenty-first year, although in the sixteenth it often acquires its ordinary dimensions.

The uterus at this period becomes double its former size in one year; it is thicker, rounder, and more firm, redder, congested, and erectile, and there are pains, heaviness in the loins, groins, hips, and thighs, with bearing-down sensations. This state is accompanied by a local or general plethora, a general *molimen*, a determination of blood to the womb, and sometimes by a febrile state, or paroxysms of heat. At length a thin, watery, yellowish, or sanguineous exhalation, a critical hæmorrhage takes place, which is the first *menstruation*. The quantity of fluid discharged is small, is of a pale or reddish colour, sometimes a vivid red; its evacuation recurs at the end of four, six, or more weeks, for the first eruptions are rarely periodical. There is great variety as to recurrence, according to individual and hygienic circumstances. We see women who menstruate regularly twice a month, and some even at a shorter period, others every two, three, six, or more months. But we generally observe that the periods are shortened according as women indulge in sexual pleasure, spirituous or vinous potations, high living, indolence, or the gaieties or frivolities of life in crowded towns or cities; but these are generally punished with sterility or incurable diseases. After menstruation is established, the uterus is fit for reproduction; but examples of pregnancy occurring before the age of puberty are well attested,

though rare. (Sir E. Home Phil. Trans. vol. lii : Velpeau). It is a general rule that women who menstruate regularly have an aptitude for conception, but there are some who feel no amorous impulse; and others who experience it long before the establishment of this function. More are sterile, though they menstruate, in consequence of diseases in the womb, its tubes, or the ovaries. Fecundation rarely, if ever, occurs before menstruation, but Hamilton, Velpeau*, Wiel†, De la Motte‡, Mondat§, Kahleis‖, and Kleeman¶ relate cases of women who had children, though deprived of their periodical function.

Dr. Hamilton knew a lady who had two infants before she menstruated. (Lectures.) M. Velpeau describes the case of a healthful woman, who was married ten years, though she never menstruated, and was most anxious to be a mother. Her husband was young, and was a father during a former marriage. He saw another woman at the hospital at Tours who had not the catamenia, although the mother of a healthful son, then aged about fifteen years. Mondat's patient was the mother of three infants. The woman mentioned by Kahleis had three successive pregnancies; and this physician names two others who were impregnated before the establishment of the menses. Kleeman describes the case of a woman, who was married twenty-seven years, and only had the menses two months after her eighth parturition; and she continued extremely regular until her fifty-fourth year. The absence of the menses is, however, a proof of sterility, and generally depends upon some vice of conformation of the womb or its appendages.

The menstrual fluid is said not to be invariably coloured at its first eruption; and this fact explains, in the opinion of Dewees, those cases of conception which are reported to have happened before the appearance of the menses. It may, also, perhaps account for impregnation in those women who have borne children, though they never menstruated; but, in my opinion, further evidence is necessary to prove that this colourless fluid is menstruous. Were it so, we should expect to find it of much more frequent occurrence than the universal observation of physicians will permit us to suppose.

The tubes and ovaries enlarge, become redder, and more sensitive; the former present the structure of muscle, are affected with a peristaltic motion and erection, and seize the ovary in fecundation (Vallisnieri, Cruickshank, and others); they contain an abundance of a white opaque mucus, which has often been mistaken for male or female semen. They present yellow spots, corpora lutea, produced by excitation, spontaneous or provoked, of the genital organs, even without the approach of the male (Home, Brugnone, Cruickshank, Haighton, Blundell; but *not* corpora lutea, according to Montgomery (Cyclopædia of Pract. Med., Art. Pregnancy). The ovaries appear to be the centre of general sympathetic excitation, and are excited by that of the uterus. Women have had uteri without ovaries; but were deprived of all the signs of puberty and nubility (Pears); others, in whom the ovaries were extracted (Pott, Simon, Lizars), had lost all the characters of nubility and power of fecundation, though the uterus remained. The ovaries were called testes muliebres by the ancients, and it is now universally admitted by physiologists, that they secrete a prolific fluid (sperm) designated

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* Traité Complet. de l'art. des Accouch. 1835.
† Obs. rar., vol. ii.
‡ Traité Compl. des Accouchem.
§ De la Sterilitié. 1833.
‖ Journ. Complement., t. xviii.
¶ Magaz. die Rust., t. xviii.

germ, which is essential to generation. The uterus may be absent, and the ovaries healthful, and then sexual desire may remain, and a molimen exist which requires the application of leeches to the vulva or anus (Dupuytren).

The vagina gradually enlarges, becomes more sensitive, spongy, and erectile.

The vulva is more firmly closed by the enlargement of the labia, and is surrounded with hairs. The mucous membrane becomes redder, more vascular, sensitive, and humid.

The breasts become prominent and conoid; the nipple projects, is conical and obtuse, of a red or brown colour; it possesses an erectile power, and is sometimes painful on the slightest pressure, and occasionally discharges a serous fluid. The areola is of the same colour as in infants, but is much larger.

Established Fecundity—Menstruation.—From the age of puberty to the forty-fifth or fiftieth year the menses or uterine secretion, in temperate climates, recurs monthly, and with most women at the end of each lunar month; but in some cases every fortnight or three weeks, in others every five or six weeks, and in some every fortnight. Menstruation commences at puberty, is generally suppressed during pregnancy and lactation; but there are occasional exceptions, as some women possess this function during both the last-mentioned states. (Deventer, Baudelocque, &c.) With it commences the aptitude for generation in woman, which is lost at its termination. It continues from puberty to old age, periods that may be called extremes, the spring and the winter of woman, as they indicate the commencement and cessation of fecundity. Menstruation is a function similar to circulation, digestion, &c., and not a disease, as some few have erroneously imagined.

The duration and quantity of the discharge vary very considerably; the extremes are from two to eight days; and half an ounce to five or six ounces, in temperate climates. The menstrual fluid differs in its physical and chemical properties from blood; it never coagulates, is devoid of fibrin, and has a peculiar odour. Its colour resembles that of venous blood kept in a phial for years, but is more florid, yet darker than arterial blood. Its eruption is often preceded or followed by a sero-mucous discharge, which ceases on its appearance or diappearance. Each eruption is generally preceded by symptoms of plethora, of melancholy and mental depression, hysteria, or lassitude. The eyes are generally surrounded by black circles, especially in women of fair complexion; there are pains about the loins, pelvis, back, and breasts, disorder of the stomach and bowels, sense of heat, pruritus, or itching in the uterus or vagina; the uterus is congested and enlarged, and sometimes ecchymosed, its orifice is soft and open, hence conception readily occurs after the cessation of the periodical evacuation. The vagina is relaxed, and more extensible; the vulva is turgid and humid; the breasts are generally swollen, and sometimes the areola round the nipple assumes a more marked colour; the ovary is very much excited, and presents corpora lutea, which are not so well marked as in women who have borne children, and are totally different, according to Dr. Montgomery.

The girl who is about to become puberous, and to menstruate, may be free from all disorder, or suffer many unpleasant sensations, as cold shiverings, sense of weight and tension in the hypogastrium, pelvis, and with a feeling of bearing down, both in the vagina and rectum; pains in the loins, hips, inferior extremities, back, chest, and head, which cause lassitude and dislike to motion; there is sometimes headach, a sense of choking in the throat, noise in the ears, derangement of vision, of taste, or of smell: in fact, there is disorder of all parts of the body, cutaneous eruptions, convulsions, hysteria,

and sometimes epilepsy*. The appetite becomes bad or depraved, and the girl wishes for improper foods, as raw vegetables, chalk, oranges, &c. In some there is fever or hæmorrhage from the nose, lungs, stomach or bowels. There may be vomiting, diarrhœa, colic, flatulency, and constipation. Baudelocque knew a woman who had vomiting and purging every month for three or four days, but she never menstruated. The secretions and excretions may be also deranged, as is proved by ptyalism, incontinence of urine, diarrhœa or constipation, or more or less abundant perspiration. The countenance is changed, the eyes become dull, and surrounded by a leaden colour or black circle. The respiration is more or less impeded, there is oppression of the chest, palpitation of the heart, spasmodic cough, and the voice becomes hoarse or sometimes suppressed. I have known aphonia in such cases as those now under consideration. The sleep is more or less disturbed and unrefreshing. The imagination is often excited by lascivious ideas, at other times it is depressed: the individual becomes stupid, sad, nervous, and extremely hysterical. Women are more subject to nervous, hysterical, and spasmodic complaints during menstruation than at any other time. They are occasionally dejected and melancholy, and extremely fond of solitude. Such are the most common symptoms which precede the first or any subsequent menstruation; but to attempt an enumeration of all that may occur, would be contrary to the usual custom of professors in elementary lectures, and would require volumes for their history. All these symptoms may disappear on the eruption of the menstrual fluid, and all are easily explained by the origin and connection of the uterine nerves.

The first eruption of menstruation is usually succeeded by an interval more or less long, according to temperament or constitution, and mode of life of the individual. One, two, three, six, or even twelve months may elapse before the function is again performed; though in general, and when the health is good, it recurs every twenty-eighth day; but there are numerous exceptions. In a perfect state of health (but this is very rarely observed in towns and cities), the menstruation recurs every month, or a few days afterwards. The natural history of this important function will be given as we proceed. It will appear, when we describe the cessation of this secretion, that a similar revolution in the economy to that now mentioned may occur, and that hygienic precautions, medical and moral precepts must be observed at this epoch of female life. It is a general rule not to administer active medicines during menstruation, unless when painful; then narcotics are indispensable.

The menstrual fluid is a secretion from the uterus, according to John Hunter; an opinion also attested by numerous eminent physicians, who observed it exude from the organ when inverted (Vesalius, Peyer, Morgagni, Mauriceau, Littre, W. Hunter, John Clarke, Hamilton, Money, &c. &c.) It was considered a secretion by Haller, Bourdeu, Hunter, and others. It was said to depend on local or general plethora (Aristotle, Galen, Moschion, Simson, Astruc, Lobstein); on a superabundance of carbon and nitrogen (Osiander); on the feebleness of the coats of the veins (Clifton); on fermentation (Paracelsus, Sylvius, De Graaf, &c.); on a particular molimen (Sthal and Duges); on erection (Emmet); on amorous phlogosis (Le Cat, Abernethy, &c.)

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* I know three sisters who are attacked with epilepsy at the commencement of menstruation; and many who suffer most severely from the most intense hysteria, which in some approaches to catalepsy, and in others to idiocy. You have frequently seen cases of this kind both at the hospital and dispensary; and many of you recollect the girl who had intense hysteria and dysmennorrhœa, and who was nearly idiotic.

This secretion was said to proceed from the uterus by the Greeks and Arabians, from the vagina (Columbo, Sue, Pineau, Bohn, Desormeaux), from the veins (Vesalius), from the arteries (Ruysch), arterial capillaries (Winslow and Meibomius), from the glands (Lister), from particular small receptacles (Simson), and from the venous sinuses (Astruc).

The menstrual secretion incontestably proceeds from the uterine cavity in the great majority of cases, and this is the received opinion of physiologists. It may be felt escaping from the orifice of the uterus with the finger. It has distended the womb when the orifice of this organ or that of the vagina or vulva is impervious by accidental or congenital vice of conformation. The cavity of the uterus has been ecchymosed in women who died during the menstrual evacuation, and also contained the catamenial fluid (Columbo, Mauriceau, Morgagni, Heister, Pison, Van Swieten, &c.)

It is likewise certain that the menstrual secretion may be vicarious, and issue from the surface of the vagina or vulva. This is the case, perhaps, when a pregnant woman continues to menstruate regularly. This deviation is occasionally observed, and also when there is a vicarious discharge from the urethra, rectum, stomach, intestinal canal, air passages, or any part of the tegumentary surfaces.

Jacobson relates a case of vicarious menstruation from the roots of the nails, and afterwards from the gums*. During six years the evacuations escaped from the breasts, and afterwards from the lungs. In cases of suppressed or vicarious menstruation, there is often bleeding from the nose, spitting of blood, vomiting of blood, discharges of this fluid from the bowels, bladder, or rectum. Sir Astley Cooper† and Baron Dupuytren‡ have described menstrual ulcers, that is, ulcers which become covered with blood every month, where the menstruation is suppresed or has never appeared. Raynal observed a tumour in the hypogastric region, which arose after suppression of the menses, finally opened, and afforded a sanguineous discharge periodically, for many years§. Chantourelle saw a patient who had a similar discharge from the finger, then from the angle of the eye, and lastly from the navel‖. Bonfils mentions cases in which the discharge was from the thigh, groin, axilla, and one from the index finger¶. A wound of a burn afforded it in the cases related by Dupuytren** and Ansiaux††. Duparque attended a case of periodical epistaxis during the absence of the catamenia‡‡. Celsio states that blood issued from leech-bites on the knee and epigastrium§§. Lastly, Gardien gives the history of an unfortunate girl in whom a vicarious discharge issued successively from almost every part of the body‖‖. All cases of vicarious menstruation are, however, very rare, and sometimes have been caused by actual idiopathic disease, totally independent of the catamenia.

It was said to be accelerated by civilization (Emmet, Roussel, Aubert); but every well informed physician is aware that it is regular in uncivilized women; and that there is a sexual discharge in some of the inferior animals.

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* Bibl. Med. 1828, t. iii, p. 28.
† Lectures on Surgery, 1824.
‡ Journ. Hebdom. Fev. 1829, p. 257.
§ Journ. Univers., t. xiv, p. 361.
‖ Trans. Med., t. vi, p. 7.
¶ Op. cit., pp. 28—31.
** Journ. Hebdom. Jam. cit.
†† Clinique Chirurg., 2nd edit., p. 303.
‡‡ Trans. Med., t. vi, p. 7.
§§ Op. cit., p. 10.
‖‖ Accouchemens, 1807, t. i, p. 348.

There is a periodical evacuation in the ourang outang and some of the monkey tribe ; and in quadrupeds, birds, &c., a glary discharge, more or less coloured, at the season of copulation; but this cannot be compared to the phenomena of the menstrual function. This function is performed in all climates and by all women, with few exceptions, during the period of life already mentioned.

Reviews.

On the Analysis of the Blood and Urine in Health and Disease, with Directions for the Analysis of Urinary Calculi. By G. O. Rees, Esq., 8vo. pp. 147. London: Longman, & Co. 1836.

We proceed to conclude our notice of the analysis of healthy blood, and must give the exact words of the author. Many of our junior friends, who are fond of animal chemistry, will find this work a most useful and instructive manual. It is impossible to review works of this kind analytically, as the various processes and directions must be given in the words of the author, and extracts, however long, are indispensable :—

" By incineration of any of these solid principles of the blood, we obtain a saline residue, which, in the case of the alcoholic and watery extract, is composed of the alkaline salts ; viz. chlorides of sodium and potassium, carbonates, phosphates, and sulphates of potassa and soda. The incineration of the albumen, fibrin, and red particles in admixture, leaves a residue of the carbonates of lime and magnesia, phosphates of lime, magnesia, and iron, and peroxide of iron ; but these earthy and metallic salts are in very minute proportion.

" I will now describe the method of proving the presence of the several salts above enumerated, beginning with the alkaline salts. These may be proved to be such by dissolving part of them in a small quantity of distilled water, and then adding a few drops of a solution of carbonate of potassa to a portion of the saline fluid. The carbonate has the power of precipitating both metallic and earthy salts from their solutions, provided no excess of acid be present. It will be now observed, that the liquor remains unaltered by the addition of the reagent ; and, as no excess of acid exists (the liquor possessing an alkaline reaction), we may at once conclude that all the salts present are alkaline. To a second portion of the solution we may add an excess of tartaric acid, and set it aside for a few hours, when a crystalline precipitate will be procured, consisting of the bitartrate of potassa ; thus indicating the presence of that base. A portion of the fused salts is now to be exposed to the inner flame of the blowpipe on a platinum wire, when the outer flame will become coloured yellow, in a very marked degree; proving that soda likewise exists in the salts*.

" Having now shown the nature of the bases, we will proceed to examine the acids with which they are combined :—1st. Let a portion of the dry salts be treated with a drop of moderately dilute acetic acid, when an effervescence ensues; proving the carbonic acid to be present. To a third portion of the solution of salts add a few drops of the solution of muriate of baryta (chloride of barium), which will occasion a dense precipitate, owing to the alkaline carbonate present. This precipitate must now be dissolved by a slight excess of pure hydrochloric (muriatic) acid, and the solution set aside ; when a white precipitate of sulphate of baryta will appear, proving the presence of the sulphuric acid †.

" A fourth portion of the solution is now to be rendered acid by a slight excess of pure nitric acid, and then tested with a solution of nitrate of silver, which will occasion immediately a white precipitate, consisting of the chloride of silver ; proving the presence of the hydrochloric acid. This precipitate may now be allowed to subside in the acid liquor, which is to be poured off into another tube, and to be carefully neutralised with ammonia. A yellow precipitate will then appear, which before was dissolved by the excess of acid. This precipitate consists of phosphate of silver, and may be further identified by allowing it to remain in the tube exposed to light for a few hours, when it will be found perfectly blackened ; thus the phosphoric acid is shewn to be present.

" We will now proceed to the examination of the earthy and metallic salts: these will be found insoluble in water; an acid

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" * It is scarcely worth while here to introduce the subject of lithia; it is proved to be absent, however, by the addition of phosphate of soda and ammonia to a portion of the solution, when no characteristic precipitate is observed."

" † If the whole of the precipitate be not dissolved by the excess of hydrochloric acid, we may also conclude that the solution contains a sulphate."

must, therefore, be used to dissolve them, which easily effects the purpose. The dilute nitric acid, perfectly pure, is to be preferred; care being taken to use little more than is absolutely necessary to effect the solution. It will be observed, that when the acid is added, a lively effervescence occurs, occasioned by the carbonic acid showing its presence. The phosphoric acid may now be proved present, by the addition of a few drops of the solution of nitrate of silver to a portion of the saline fluid, and then neutralising the excess of nitric acid with pure ammonia*; when the yellow phosphate of silver will be precipitated. The existence of this acid may also be demonstrated before the blowpipe, by subjecting a portion of the dry salts to the action of the inner flame, having previously moistened them with strong sulphuric acid, when the outer flame will be coloured of a beautiful green.

"Having now experimented upon the acids, we will proceed to the examination of the bases. To a portion of the saline solution add a sufficiency of ammonia nearly to neutralise the acid, and then let it be tested with the ferro-prussiate of potassa, when a precipitate of the prussian blue or ferro-prussiate of iron will collect in the solution. Many minutes are sometimes required, however, before this effect is produced. In order to demonstrate the presence of the earthy phosphates, the acid solution must be neutralised with ammonia, when the peculiar gelatinous appearance of the precipitate will sufficiently characterise its nature. For a further examination of the earthy phosphates, and also of the phosphate of iron, *vide* Appendix."

Our readers will now perceive the correctness of our statement as to the necessity of long extracts, as the matter and importance of experiments of the above description cannot be condensed. We find, however, that our space will not permit us to proceed much farther, and that we must content ourselves with the account of the analysis of healthy serum.

"The analysis of the serum approaches very nearly to that of the blood, differing from the latter only in the absence of fibrin and red particles. The table of the constituents of serum is therefore at once procured by erasing these two bodies from the list of principles contained in the entire fluid. Thus the constituents of serum are as follows:—

Water.
Albumen.
Extractive matter, soluble in water and alcohol.
Albumen, combined with soda.
Crystalline fatty matter.
Animal oily matter.
Chlorides of potassium and sodium.
Alkaline subcarbonate, phosphate, and sulphate.
Earthy phosphate and subcarbonate.
Subphosphate of iron.
Oxide of iron.

"I shall proceed to the description of the process for making the quantitative analysis of the serum; a knowledge of which will now enable the student to ascertain the proportions of each ingredient of the entire blood, the method of determining the quantities of fibrin and red particles contained in any given specimen having already been noticed.

"A portion of serum destined for analysis is first to be carefully weighed; 200 grains is frequently used by chemists; but if the operator can afford to wait the requisite time for the evaporations, I should recommend that he use 1000 grains in his experiments.

"The weight of the serum being noted, it is now necessary to evaporate it to dryness over a water-bath, and then, on ascertaining the weight of the dry extract, and subtracting it from that of the serum, we obtain the proportion of water contained in the specimen.

"The dry extract is next to be carefully broken up in the evaporating dish, and then treated with boiling distilled water; care being taken that the heat be kept to 212 degs. Fahrenheit at the moment of admixture, as otherwise the albumen is liable to assume a gelatinous form, which greatly interferes with the process. The quantity of water first added should be equal to about four times the bulk of the extract, and should serve to detach it from the sides of the evaporating dish; it then may be allowed to digest for a quarter of an hour when it is to be thrown on a filter and allowed to drain. The contents of the filter are now again to be treated with boiling water which is to be added by small quantities; a small portion of the liquor which passes through being occasionally tested with a solution of nitrate of silver, as it is necessary to continue the washings with boiling distilled water until the reagent above mentioned ceases to be affected by the percolating fluid. We in this way procure a residue B, and a filtered solution A.

"A, the solution, is now to be evaporated

"* Great care must be taken that too great a quantity of nitric acid be not added in performing the solution of the salts; for in that case, the great excess of nitrate of ammonia (which is formed on the addition of the ammonia), tends to hold the phosphate of silver in solution. This fact of the solubility of the phosphate in ammoniacal salt will probably account for the frequent disagreements of chemists as to the existence of phosphates in some animal matters."

to dryness, and the result must be weighed, its weight being noted. The next step consists in adding to the dry mass about four times its bulk of hot alcohol, which should be allowed to digest for ten or twelve minutes. The first portion serves to place the extract on a filter, and when the filtration is finished, two portions of hot alcohol, each equal in bulk to half the first, are successively to be allowed to wash the residue which will be observed on the filter; thus we have formed a clear solution C, and a second residue D.

"C. This clear solution on evaporation yields the animal extractive or osmazome, soluble in water and alcohol; this is to be dried over a water-bath, and its weight ascertained. From this datum we may likewise obtain the weight of the albumen combined with soda; which is done by subtracting the weight of the osmazome from the weight of the solid matter of the solution A.

"D. This second residue is entirely soluble in distilled water, and consists of albumen combined with soda. Its weight may be ascertained directly, or inferred as above mentioned in process C.

"B. This residue is to be dried and weighed; successive portions of alcohol are now boiled on the mass until they no longer deposit stearine on cooling; these alcoholic washings are to be added together and evaporated over a steam-bath. The residue B is to be again dried and weighed, which will afford the proportion of albumen. The dried fatty matters may now be washed with cold alcohol, which dissolves the oily and leaves the crystalline fat; these may next be separately dried and weighed, to ascertain their proportion.

"The following processes are now necessary, in order to render the analysis complete, by the determination of the proportion of alkaline and earthy salts. With this view, we must first incinerate the albumen, and keep the residue at a red heat in a platinum crucible over a circular wicked lamp until all carbonaceous matter is dissipated; the weight of the residuum indicates the proportion of earthy salts with phosphate of iron: this weight must be subtracted from the original weight of the albumen (obtained by process B), in order to arrive at the correct proportion of that animal principle.

"The proportion of alkaline salts may next be ascertained by incinerating the watery and alcoholic extracts obtained by processes C and D. The extracts must be separately incinerated, and the weight of salts in each be subtracted from the weight of the extract, in order to ascertain the real weight of animal matter in each of these extracts.

"It will be observed, that the determination of the proportion of salts is a necessary step in order to ascertain the true amount of the animal extracts.

"Before proceeding to the consideration of the unhealthy serum, it will be necessary to observe the quantitative constitution of that fluid in its healthy state. I therefore annex the following results of two analyses, as made by M. Lecanu:—

Water	906·00	901·00
Albumen	78·00	81·20
Organic matter soluble in water and alcohol	1·69	2·05
Albumen combined with soda	2·10	2·55
Crystalline fatty matter	1·20	2·10
Oily ditto	1·00	1·30
Chlorides of potassium and sodium; Alkaline phosphate, sulphate, and carbonate	8·10	7·32
Earthy phosphate and carbonate, with sulphate of iron	0·91	0·87
Loss	1·00	1.61
	1000·00	1000·00

"For those who cannot spare time to make an analysis as above, it may be well to mention the formula, as under, which may be very easily effected.

Water
Albumen, with earthy salts and phosphate of iron*
Animal extractive, with albumen and soda†
Fatty matters‡
Alkaline salts

In conclusion, we have to observe, that every part of this little work is executed with as much ability as is evinced in the portion of it we have noticed. We recommend it to every chemist and junior medical practitioner.

"* Avoiding the incineration of the albumen."

"† Avoiding the separation by alcohol."

"‡ Avoiding the separation of the crystalline fat from the oily matter."

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Proceedings at the Seventeenth Anniversary Meeting of the Hunterian Society, held on the 10th February, 1836; with the Report and List of Officers and Members.

The Hunterian Society has set a good example to similar institutions, by publishing an Annual Report of its proceedings, which abound with valuable practical matter. We wish other Societies would adopt this practice. There is a good deal of nonsense spoken at our Societies, by those who are anxious to see their names in print; and this is necessarily abridged or excluded by the medical press, and also in the Report before us. This is as it should be. Indeed, the Hunterian Society go so far as to exclude the names of individuals altogether, and merely give the important cases; which answers every useful purpose.

We shall proceed to place this Report before our readers.

"*Organs of Assimilation.*

"*Liver;*—enlarged by round soft tubercles of medullary sarcoma, to such an extent as to weigh seventeen pounds and a half. The case occurred in a woman aged thirty-nine, of temperate habits, and the mother of a family. At the period of her death she was six months advanced in utero-gestation, and had become unnaturally large and heavy. Incessant vomiting, pain on inspiration in the left side, and hæmoptysis, preceded death. Her motions were dark and scanty, but she had no pain in the right side and shoulders, nor was jaundice observable. On inspecting the emaciated body, the liver was observed to occupy the whole abdomen down to the cristæ of the ilia: the gall-bladder contained bile. The enormous liver consisted of numerous round yellow tumours, some hard, others softer, and all very large. Wherever the parenchymatous structure of the liver remained free from the fungoid disease, it was readily injected from the vena portæ and from the hepatic artery; but none of the tubercles could be injected.

"Two similar cases were alluded to; one occurring in a young female, whose liver weighed sixteen pounds; the other began two years ago in the liver of a lady who became pregnant: she had frequent sickness, and was jaundiced. In due time delivery took place safely, and afterwards a large tumour was felt connected with the liver. Though this person was jaundiced for many months, it was notable that her milk exhibited no traces of bile.

"The best mode of proving the presence of bile in a fluid, was stated to be by dipping white paper into the liquid to be examined, repeatedly, and then to dry it. If sulphuric acid, diluted with four parts of water, be dropped on this paper, a grass-green colour is produced in a few minutes.

"*Bowel, imperforate condition of;*—an infant had no discharge of meconium for two days. Injections were used without effect, and the child died with incessant vomiting on the fourth day. The intestine was found quite occluded from the cœcum to within three inches of the rectum; so that the colon was a mere chord. In a case of *imperforate anus*, of that class in which the *sphincter ani* is firmly contracted, and the skin has no appearance of external aperture, a cure was effected, after dividing the *sphincter ani*, chiefly by the employment, during several years, of an hour-glass-shaped pewter instrument. Other instances were alluded to, in which the rectum was found to terminate in the hollow of the sacrum. Fatal hæmorrhage succeeded the attempted operation.

"Instances of remarkable tenderness of the hands and feet have been detailed in connection with *diseased rectum.*

"*Sero-enteritis;*—diagnosis of, sometimes aided by the sense of crepitation, which may be discerned when the abdomen is pressed, and, as it were, kneaded. Probably it depends upon the intestines being glued together by adhesive matter, which may also unite them to the peritoneum which lines the abdominal muscles.

"*Circulating System.*

"*Angina pectoris;*—the pathology of this disease has been investigated as connected with effusion into the pericardium, and (in one instance) with an unclosed state of the foramen ovale. The carbonate of iron was found to be very useful in the treatment of the former kind of cases.

"*Arteritis;* a case of—in a female æt. 22, who had excessive pain and sensibility of the skin of the upper extremities, without apparent inflammation, which was succeeded by coldness of the limbs. Soon afterwards the lower limbs were likewise affected, and with greater violence, the pain being in the course of the main arteries, which here and there felt impervious and very hard. No pulsation was felt in the subclavian arteries. Sphacelus had begun in the foot; the phalanges of one foot were separated, and the tarsus was exposed. The temperature of the limbs was rather lower than that of the trunk.

"Another case was described, which occurred in the person of a stout and apparently healthy man, who had an exquisitely tender sloughing ulcer on the instep, with obliteration of the femoral artery. A long period of the most watchful attention was required, before the ulcer could be healed. Is such excessive sensibility of the skin peculiar to disease of the arteries? Does it not also accompany inflammation of the veins?

"*Phlebitis*;—a severe case, affecting one limb and then others successively; the pain was extreme, and was relieved only by the application of leeches and of water at the highest temperature which could be borne without disorganizing the skin.

"Many instances were related of peculiar tenderness of the skin in connection with inflammation of the arteries or veins, with puerperal peritonitis, and with erysipelas. Two cases were adduced of the latter description, in which intense pain occurred about the ankle, and was soon succeeded by sphacelus at the part. The rapid evolution of these symptoms was deemed pathognomonic of an intractable and fatal affection.

"The morbid changes which veins may undergo were considered; especially those in which the spermatic veins, for example, have been found ossified. The veins of the leg and arm have also been observed ossified to a considerable extent.

"*Excretory Organs.*

"*Kidneys*;—the connection of disease in these organs, with the sudden occurrence of paraplegia, has been confirmed by recorded instances; but it was thought that sufficient attention had not always been paid, even in those cases, to the state of the spinal marrow, which is sometimes described as 'not at all diseased, only somewhat congested.'

"A man had stricture with fistula, in perineo. He improved under treatment; but suddenly his powers failed; when paraplegia came on, and in three weeks he died with typhoid symptoms. On examination, the bladder was found healthy, and opposite the second lumbar vertebræ, the intervertebral substance had grown upon the spinal canal, so as to diminish its calibre by two thirds.

"Again, the following case was supposed to illustrate the production of diseased bladder, by disease in the spinal chord. A youth ten years of age, had a small tumour in his right groin, attended with pain in the buttock, some degree of shortening and paralysis of the right leg. At length the patient was unable to evacuate his bladder; the catheter was therefore introduced, and a large quantity of ammoniacal urine followed. This operation was often repeated, until the boy's death. All the coats of the bladder were then found thickened, and the mucous coat exhibited signs of high irritation, greater on the right than on the left side. The right kidney also was much enlarged and diseased. The spinal marrow was considered diseased, but the precise nature of the morbid change was not known.

"*Irritable Bladder*;—a gentleman, aged 74, discharged very much ropy mucus with his urine, so as sometimes to form even one-third part of the whole quantity evacuated by the bladder. His urine was highly alkaline, and contained triple phosphates. The use of vegetable and mineral acids—Chablis wine, which contains much malic acid—and a decoction of the *alchemilla arvensis* (made by boiling, for three hours, half an ounce of the leaves in a pint of water), taken in the quantity of half a pint daily, had each in their turn been efficacious to remove this state of things. Probably the alchemilla arvensis acts alone on the mucous membrane of the bladder. The question arose of the production of triple phosphatic salts by a highly irritable state of the mucous membrane of the bladder. The phosphates are often found united with ropy mucus in a firm mass. A person had long suffered from extreme irritation of the mucous membrane of the bladder; after death, that organ was found firmly contracted around a lithic acid calculus, on which were deposited crystals of the triple phosphates. That this particular secretion, however, does not result from every state of mucous irritation, was not argued; for the case of a female was adduced who had suffered for thirteen years from such mucous irritation, with occasional deposition of the triple phosphate. She suffered most irritation and pain when there was no deposit; and no calculus had ever been discovered.

"Again, a person, now forty years old, received a kick when a boy, which caused the glans penis to slough. As the ulcer granulated, the orifice of the urethra became so much contracted, as ever since to have prevented the entire expulsion of urine from his bladder. Mucus is most abundantly secreted, and without phosphatic salts. In another case, a thick, tenacious mucus flows, proportioned in abundance to the difficulty with which the urine is expelled.

"An instance of gonorrhœal inflammation was related, producing retention of urine in two days from its onset. The spasmodic irritability was so great, that a catheter could not be passed for three days. A large number of leeches, and other active means, were applied. Under similar circumstances the practice was preferred by some practitioners, of abstaining from using the catheter, but to give mercury and henbane till the gums become tender.

"*Diseases of the Brain.*

"*Serous Apoplexy*;—a case suddenly occurring in a man, ætatis 55, who was struck in the face, and received other insults, which produced an extreme degree of mental excitement. Vomiting immediately occurred, and continued violently, followed by pain in the head, which was succeeded by stupor. Venesection was freely employed, but without any beneficial result. In a few hours he breathed stertorously; but it was remarkable that he retained his voluntary powers. There was no priapism. He died in the course of a few more hours. On post mortem examination, extensive serous effusion was found to have taken place into the ventricles, and into the cavity

of the arachnoid membrane: a clot also was found in each hemisphere of the cerebellum. If this case had come before a coroner's inquest, ought the verdict to have been 'death from a blow?' Perhaps one may suppose that the blow and the fit of apoplexy were coincident; and not that there was strict dependence of one upon the other. The serous effusion had probably been of long standing, and this operating on a highly-excited condition of mind, had led to the fatal result.

"A gentleman, aged 47, on retiring to bed, suddenly lost his power of speech, and soon became comatose. He was bled, but continued in a state of stupor, breathing irregularly and stertorously with occasional long pauses between the inspirations. When liquid was poured into his mouth the muscles of deglutition were quite passive. On raising his closed eyelids the pupils were found strongly contracted. The pulse was large, very weak and soft, in frequency a little above a hundred. There was no paralyses, but a highly spastic condition of the flexor muscles of the arm and hand. Thirty hours after, when frequent bleedings and calomel had been employed, he opened his eyes, protruded his tongue when desired, and moved his right arm up to the back of his head. But he died sixty hours after the first attack. In early life this gentleman resided in India, which country he quitted on account of bad health, brought on, perhaps, by a coup de soleil. Some years back he was confined in an asylum for the insane; and had since been dyspeptic and hypochondriacal, so as again to end in insanity a year and a half ago. Post mortem examination. Much serous and gelatinous effusion was observed between the arachnoid and pia mater. The minute vessels of the latter were much injected. The cortical and medullary structures of the brain were remarkably distinct from each other. Serum also filled the ventricles. All the medullary structure of the brain was softer than usual, and in the centre was a cavity as large as a pea, surrounded by congested vessels. There was no coagulum of any magnitude. The lobes of the cerebellum, and chiefly the left, were softened in structure. The whole brain showed more than a usual number of bloody points when it was divided. The heart was healthy, but the aorta dilated. It is worthy of note that some blood and serum which escaped from the divided brain and bones of the skull, was put into a clean cup, and exhibited a large well-formed coagulum; this occurred twenty-two hours after death.

"Among other affections of this class, the following was described. Nearly two years ago, a gentleman whose pulse was habitually feeble, became hypochondriacal and paralytic. He had lately recovered so far as to perform his duties as a dissenting clergyman, and had exerted himself much in the pulpit, when he became lame on walking home, and in two hours was paralysed in his left side. Consciousness was soon lost, the right side became also paralytic, and in twelve hours he died. On examination, the cerebral membranes contained more blood than usual; the whole right hemisphere was like a custard with blood in the centre, which was poured out from a small vessel to the extent of about four ounces. The opposite hemisphere was nearly exsanguine. The heart was flabby, and its cavities small. It was thought this softening of the brain was in consequence of its receiving a defective supply of blood.

"*Generative System;*—one of the rarer kinds of malformation has been brought under the notice of the Society, which occurred in a female aged 20, whose external organs were perfect excepting the entrance to the vagina, across which was a smooth fold of membrane. A little cellular membrane only separated the urethra and rectum, neither could any uterus be felt.

"A remarkable instance of *Hernia of the gravid uterus*, has been communicated by Dr. Fischer of Berne, corresponding member. The woman was 44 years of age; she came to the hospital at Berne, October 12th, 1832, under the care of Dr. Fischer, and was found to have inguinal hernia on the right side. She had had seven children, and had never worn a truss: she was now in the sixth month of pregnancy, and the hernia was strangulated. The means employed reduced it, but there immediately came on severe pains of the abdomen, loins, and lower extremities; and, during these pains the impregnated uterus passed through the ring covered by the hernial sac, and rested on the thigh. The os uteri could be felt on examination per vaginam, retracted, and to the right side: regular pulsations were discoverable on applying the stethoscope to the tumour. She now kept her bed till the full period. On the 19th January, 1833, labour commenced, and the waters escaped per vaginam, upon which the pains increased prodigiously. Consultation was held, and Dr. Leuch decided on performing the Cæsarian section, which was done about nine the same evening, in the presence of several professors and other medical men. A description of the operation was detailed. A living child was extracted. There was considerable hæmorrhage. During the night she appeared much exhausted, and a small bleeding artery was discovered in the sac, but towards the morning of the 20th, she was more tranquil, though weak. Vomiting came on, so that she ejected every thing she took. She died about three or four in the morning of the 21st. Examination: On opening the cavity of the abdomen, it was discovered that hæmorrhage had taken place from the wounded uterus. The hernia

ring was so much extended, as to allow an open hand to pass through it with ease. The hernial sac was above and to the right, the uterus below and to the left of the ring. The pelvis was large and well formed.

"A Maltese was the subject of umbilical abscess which destroyed a portion of the recti muscles. She became pregnant, and the gravid uterus escaped through the aperture in the abdominal muscles, and laid on the thigh. When labour came on, the tumour was supported, and the uterus expelled a fœtus in the natural mode. Cases of doubtful pregnancy, without disease, have been stated to be made clear by the aid of the stethoscope; while, in other cases, obscured by the coincidence of uterine or ovarian tumours, no aid could be obtained by auscultation.

"A comparison has been carefully instituted between the mode of inducing premature labour by the ergot of rye, and that by the method of repeatedly irritating the *os* and *cervix uteri*. The ergot was generally thought an uncertain agent, possessing too, poisonous properties, which frequently destroy the infant's life, if it do not injure the mother's health.

"On the other hand, the method (introduced by the late Mr. Jones, of Finsbury), of separating the membranes from the neck of the uterus was found productive of extreme irritation, or even inflammation; and neither plan seemed in the opinion of some preferable to that of evacuating the waters, while, however, the ergot might be usefully given *after* the membranes had been punctured, as effected in some cases.

"Numerous discussions have taken place on the various descriptions of *tumour* to which the human body is liable.

"Instances of hæmorrhagic tumour on the infantile head simulating hernia cerebri have been found beneficially treated by means of cold applications and others, calculated to promote the absorption of the tumour, which usually takes place in a few weeks.

"Exceedingly unmanageable ulcers have resulted when the tumour has suppurated, or has been injudiciously treated, on the supposition that it was a cerebral hernia.

"Examples of a very simple form of tumour have been found in the pedunculated bodies contained in certain veins, especially the spermatic. One instance of this kind of phlebolite was observed in the vena cava of a man in the prime of life; it was perfectly unattached, round, and consisted of fibrin.

"A gentleman became the subject of a moveable tumour on the left side of the abdomen, after the subsidence of an attack of peritonitis. *Twenty minims of liquor potassæ* thrice a day entirely removed the tumour in three weeks. Other similar tumours in the mamma have been removed by the same means.

"Enormous *adipose* tumour has occurred in the person of a woman aged 32. At twelve years of age it commenced on the left thigh, and gradually extended across the nates to the opposite side. Its larger circumference measures two yards and a half.

"*Heterologue Formations.*

"The cause producing those structures, which are usually denominated malignant, has been proved, in three instances, which need not be more particularly detailed, to be a severe blow upon parts of slow power of reparation, or in the neighbourhood of glandular structures.

"The difficulty of giving a positive opinion on the nature of some abdominal tumours, led to the mention of a case of tumour, supposed to be connected with the liver, in which blue-pill and dandelion extract were administered. Skins of numerous hydatids were subsequently passed from the bowels, and the patient recovered.

"Cancer of the œsophagus, involving the aorta, in a gentleman 55 years of age. With great difficulty of swallowing, he regurgitated rather than vomited his food. By abstaining from the attempt to swallow, and by nutritive injections with hemlock, life was sustained, and the symptoms, for a long period, greatly relieved. He died from hæmorrhage. The lower three inches of the œsophagus, and also the cardia, were in a state of medullary sarcoma, which had probably begun in the glandular texture of the tube, and extended to the aorta, in which was an ulcerated opening as large as a crow's quill, with soft degenerated edges. The fatal hæmorrhage had taken place from the aortic ulceration.

"*Hard Tumour of the Uterus;*—a lady had been married ten years without having conceived, when, at the age of forty-three, she became pregnant. No increased size of the abdomen was observable after the fifth month: a large tumour was felt in the right hypochondrium, besides the lower uterine tumour; and the fact of pregnancy was exceedingly obscure. About eleven months after there was evidence that pregnancy had commenced, this female was delivered of a dead child of unusual size. Some inflammation of the abdominal tumour, which was now found to be evidently connected with the uterus, succeeded, but she recovered in a great degree. Bronchites, however, suddenly appeared, and destroyed life on the fourteenth day after delivery.

"Besides the appearances of inflammation in the chest, a round fibrous tubercle, as large as the two fists, was found growing from the fundus uteri, and adherent to the colon by bands of false membrane. Its texture consisted of several firm, round tu-

bercles, united by loose cellular membrane. Towards the peduncle, by which it was connected with the uterus, its texture was very loose, but no puriform or other fluid matter was observable. In another case connected with pregnancy, the patient died a week after delivery: on examination, two tubercles were found in the anterior part of the fundus uteri; one of them in a state of suppuration—both had caused recent uterine inflammation.

"*Medullary Sarcoma*, in the right testis of a child ten months old. In two months the tumour increased to the size of a hen's egg, when castration was performed, and the child recovered very well from the operation. In the course of four months a large pulpy tumour grew on the scalp, and the infant soon died. On dissection, no vestige of the natural structure of the testis remained: a very soft, brain-like tumour, the size of a cherry when it was separated from the surrounding tunics, projected from the gland. The lumbar glands were studded with medullary tubera; the left lung, and the inner and outer surface of the parietal bone, also exhibited specimens of fungoid tumours.

"A second case was described, which occurred in a man aged 30. After various means had been unsuccessfully employed, castration of the gland was performed. At the present time, four years after the operation, he is in good health. The exterior part of the gland was found to be scirrhous; the interior broken down into a soft pulp. The tunics were thickened, and the chord contained some minutely-injected serous cysts.

"*Diseases of Obstetricy.*

"*Prolapsus Uteri;* in a woman thirty-nine years of age, who had borne five children. The prolapsed parts protruded from the external parts and rendered her incapable of discharging her duties.

"The operation, as suggested by Dr. Marshall Hall, was performed on December 3rd, and though tedious, was not very painful, nor attended with much hæmorrhage. The female entirely recovered.

"An interesting case of extra-uterine fœtation, which was successfully treated by opening the sac, and extracting the fœtus, was detailed in the Society. But as it has since appeared in the Medical Journals, it is not necessary to relate it here."

"BATEMAN'S DR. HANCOCK'S PREPARATION OF RIO NIGRA SARSAPARILLA."

A PARAGRAPH thus headed was forwarded to us too late last week for insertion, by Mr. Bateman's solicitor, contradictory of our comments upon a hand bill which set forth, that most of the crowned heads of Europe, with many of the nobility, as honorary fellows of the Medico-Botanical Society of London, patronized the above named preparation. The names of several eminent physicians were also inserted as patrons of the new medicine; and even our own, although we never saw Mr. Bateman nor his preparation of sarsaparilla. We were also aware that the Medico-Botanical Society felt highly indignant at the liberty Mr. B. took in misusing the names of its fellows, and asserting that they patronized his preparation. In our number, February 13th ultimo, we commented upon this hand bill, and at the same time inserted a note from Dr. Hancock, denying that he had given Mr. Bateman permission to place his, Dr. H's. name. on the government stamp of his preparation. We received a note from Mr. Bateman, dated Birmingham, which we inserted February 23d, in which it was stated, that on the return of the writer to town he would refute the statements of Dr. Hancock. With these statements we had nothing whatever to do; but Mr. Bateman has never refuted them, though he knew our pages were open to him; and instead of doing so, his solicitor threatened legal proceedings unless we performed this office for his client. This gentleman also informed us he had at his office the advertisement, (meaning that on which we commented, we presumed), in Dr. Hancock's own handwriting, and also a receipt for money received, which he called on us to inspect. We took high legal opinion upon the matter, and were advised that we had nothing whatever to do with the disputes between Dr. Hancock and Mr. Bateman, as our comments were made on a quackish advertisement, and not on the letters of either party and, therefore, that we ought not to inspect the documents, as requested to do. We however, for peace sake, and as we never had an idea of injuring Mr. Bateman, as a chemist, druggist, or patent medicine discoverer, called at his solicitor's, and saw an advertisment, not in Dr. Hancock's handwriting as alleged, but in his son's; but this was not the one which we criticised. We also saw a receipt in Dr. Hancock's own handwriting, for a sum so small as to render it incredible that it was paid for the use of his name. We stated that we had nothing to do with those documents, and that our pages were open to Mr. Bateman. Instead, however, of his reply, we received the following paragraph, purporting to be written by us:—

"*Bateman's Dr. Hancock's Preparation of Rio Nigra Sarsaparilla.*

"We are satisfied there was no ground for or justification of either of our attacks upon Mr. Bateman of Thistle Grove, Brompton, in the Medical and Surgical Journal on the 13th of February, ult., and the 10th April, instant. We have since seen in his solicitor's hands, the MS. in Dr. Hancock's

handwriting*, which we regret we did not inspect when invited so to do by his printer†. We beg Mr. Bateman to receive our unqualified retraction of all we have said concerning him, and trust his reputation has in no way been affected by our injudicious and unguarded remarks, and further to express our sense of his great consideration in not instituting any legal proceedings against us for statements which, under the circumstances now within our knowledge, we cannot but admit to have been grossly libellous."

This may be the light in which Mr. Bateman considers the matter; but it is not ours, nor that of the respectable members of our profession.

We shall now offer a few comments on our position with Mr. Bateman.

He first writes to us complaining of Dr. Hancock's note, published Feb. 13th, and not on account of our strictures prefixed to it, on a most extraordinary handbill, which we even now, in mercy to Mr. Bateman, decline to insert. Dr. Hancock complained, and most justly, that his name was placed on a patent medicine stamp by Mr. Bateman, without his knowledge or authority. Surely Dr. Hancock had a right to complain of this, as much as Sir Henry Halford would have reason, had the notorious Morison headed his label "Morison's Sir Henry Halford's Universal Vegetable Pills." But Mr. Bateman has forgotten to inform his solicitor, that he wrote to Dr. Hancock that his preparation was bad. and that he, Mr. B., no longer used it, but one of his own invention. "by the improved method I have adopted." * * * "The public know my preparation, and shall continue to know it in despite of every attempt to put it down." Here, then, is "Bateman's Dr. Hancock's Preparation of Rio Nigra Sarsaparilla." Now, on these and many other admissions in Mr. Bateman's letters to Dr. Hancock, and to ourselves, we shall not offer a single comment, though there is ample room for remark; but we contend, as medical journalists, it is our duty to expose any person who, unauthorized, presumes to name many of the sovereigns, princes, and nobles of Europe, as Honorary Fellows of the Medico-Botanical Society, as recommending a patent medicine first called Dr. Hancock's, and yet denied to be that gentleman's, when appealed to by any injured and respectable member of our profession. This is the head of our offending, and we are well advised that we have not exceeded the limits of fair criticism, under the circumstances. Mr. Bateman's preparation may be very valuable; but we know nothing about it, and cannot help complaining of his use of our name as recommending it, without our knowledge of its efficacy. This may appear a very trivial affair to Mr. Bateman; but we request he will omit our name in future, or we shall be compelled to have resort to his own weapons in defence of our professional character.

We have bought experience in attacking quackery, at a very unprecedented price, and we have no fancy to incur again the expense of legal proceedings; but we are not to be intimidated, even on this head. We have never written a word against Mr. Bateman as a tradesman, or patent medicine vender or discoverer, nor his remedy; we think he has as much right as any one else to make discoveries, but not to use the names of kings, princes, and the medical members of learned Societies as his patrons, when the fact is not so.

* The MS. was not in Dr. Hancock's handwriting.—Ed.

† We never were invited by his printer.

The London Medical
AND
Surgical Journal.
Saturday, May 14th, 1836.

SHOCKING STATE OF PAUPER CHILDREN UNDER THE POOR LAW ACT.

The exposure of the system of farming out young and helpless infants, as given by Mr. Pettigrew in his valuable letter, noticed at some length in our last, is almost too revolting to consider with any degree of calmness. The cold-blooded policy which originated a system so devoid of every characteristic of humanity, cannot be contemplated without horror. In any point of view we may look upon the subject, it appears to us that the system is as short-sighted as it is cruel, unless the object of those in authority is, indeed, to destroy the unfortunate innocents committed to their care. We say the system otherwise is short-sighted, whether regarded as a parochial or a national affair. Regarded as a parochial one, it throws a great increase of expense on the parish eventually: it does not require much argument to prove this fact. The vast influence the first few years of existence have on the future individual, are well known to every physiologist; for,

"As the twig is bent the tree's inclined;"

so a sickly childhood, a childhood spent in the manner so eloquently described by Mr. Pettigrew, must bring on, not only a sickly and imperfect manhood, but a premature old age. Impure, confined air, want of exercise, improper and deficient nourishment, have as baneful an effect upon the mind as the body, giving rise to depressing passions, and turning the hearts of the oppressed against their oppressors. The way in which such a system acts on the parish funds must be evident. It increases the number of paupers in an immense degree, for in many instances, those who would be anxious to work cannot, from want of physical power, and those who can, will not, remembering the persecutions they have suffered; both classes are thus thrown upon the poor-rates; and hence, for the trifling saving of a few pounds, temporarily, at the expense of the health, nay, almost the life of a number of young and helpless children, that scourge of our country, consumption, is fostered and increased, the future happiness and comfort of our population destroyed, our workhouses filled, and our gaols *thronging* with prisoners. These are the effects this system has on the parish and on the nation; and even worse than these, it takes away from our national strength, it diminishes the capacity for labour in our manufacturers and mechanics, at least in a portion of them; thus affecting our commerce as well as our agricultural relations.

"Princes and lords may flourish or may fade;
A breath can make them, as a breath hath made;
But a bold *peasantry*, their country's pride,
If once destroyed, can never be supplied."

Loud are those in authority against the intemperance, immorality, and insolence of the lower orders; they can discourse most eloquently on these topics, whilst, in their short-sightedness, they see not the cause has originated with themselves, has originated in that system, which sinks man below "the beasts that perish."

To Mr. Pettigrew we feel highly indebted for his timely, judicious, and spirited exposure; coming from a man attached to no party, justly occupying a high station in his profession, and influenced only by motives of humanity in adopting the course he has done, we are convinced his letter must have some influence in removing these evils. If, however, they are still persisted in, if the truths thus plainly told, are to be slightingly passed by or entirely overlooked, then we say there is little justice, and less humanity, in the rulers of the poor.

KING'S COLLEGE.

THIS "flourishing Institution" is being rapidly deserted by its professors; there are now vacancies in the chairs of surgery, medicine, and materia medica. This certainly says little for the "increasing prosperity" of the high church and Tory school.

LONDON MEDICAL SOCIETY.

Monday, May 9, 1836.

DR. WHITING, PRESIDENT.

Spina Bifida?

Mr. DENDY exhibited a drawing of a tumour, which he was requested to examine about two months since; the tumour was situated at the lower part of the sacrum of an infant of about a month old, in a perfect state of health. It did not strike him even at first that it was *spina bifida*, though occupying a space near that in which such disease frequently takes place. There was, however, no defect in the spine; the infant was free from disease—its lower limbs were developed in proportion to the upper extremities—the tumour appeared encysted and was much distended with a transparent fluid—there was no pain on pressure—he could not diminish its size by manipulation. Three or four other medical men who inspected the tumour, considered with Mr. Dendy that it had no connection with the spine. After mature consideration, and the tumour being so exceedingly tense, he was fearful of its bursting, Mr. Dendy determined on puncturing it; he did so, and evacuated about eight ounces of fluid; during the operation the infant frequently smiled, and even til

the last drop of the fluid was evacuated; it however, gradually became faint, and remained in syncope for the space of half an hour. A probe was introduced into the cyst, and after a most minute examination, no trace of an opening into the spine could be detected. Some diffusible stimuli were given to the infant, and in about half an hour, it recovered. Now he (Mr. D.) was at a loss to account for this syncope; it must either have resulted from mental influence, actual pain, exhaustion gradually diminished, the effect of noxious gases, or the removal of pressure; it could hardly be supposed from the three first, as the infant was laughing up to the last moment. When the cyst was empty, it was doubled up and bound tightly down with bandages; the tumour had, however, very gradually re-filled. For the first few days, there was no sign of a fresh secretion; but on the seventh it began to fill, and three weeks afterwards was full, but not so large in size as it was at first. The infant has grown rapidly—the tumour now seems to contain a fluid partly serous and partly consisting of coagulable lymph; its coats have become thickened. What was the cause of the fainting, and what treatment should be pursued? He (Mr. D.) intended to again evacuate the contents; and if that failed, he thought he should apply a ligature round the base of the tumour.

Dr. Uwins considered it would be very difficult to account for the syncope; he thought, however, that symptom was demonstrative of the tumour having some connection with the spine.

Mr. Jones thought there might be exceedingly minute connections with the spinal cord, by openings not detectable with the probe. He thought it likely that some of the fluid which exists between the dura mater and arachnoid membrane, and the presence of which was considered by Magendie, necessary for the proper performance of the functions of the brain had escaped into the tumour, and been evacuated, and that this might account for the fainting, by the removal of the pressure.

Several gentlemen considered the disease spina bifida, and recommended it to be treated accordingly.

WESTMINSTER MEDICAL SOCIETY.

Saturday, May 7th, 1836.

DR. ADDISON, PRESIDENT.

Epilepsy—Paralysis of the Extremities—Cancer and Noli me Tangere.

Dr. Johnson related the case of a gentleman who had lately come to town to consult Sir A. Cooper and himself. Seven years since, whilst on a race-course, the patient had an attack of epilepsy, since then he has had four attacks at very unequal, and considerably distant periods, one interval being upwards of two years. The last seizure occurred about eighteen months since. Nothing had been done for these fits. After the last paroxysm he began to experience a numbness of the toes, which gradually extended up to the ankles, then to the knees, and stopped about the middle of the thigh. There was a gradual loss of muscular power, so that about four months since, after a fright, he had not been able to walk without support. At the same time he began to experience similar sensations in the upper extremities, beginning at the tips of the fingers, and gradually extending up to the elbows, and then to the shoulders. The diminution of power corresponded with that of sensation. He also began to lose the power of the rectum and bladder, so that he could only make water when he had a motion; the pressure of the abdominal muscles having the effect of emptying the bladder on straining to evacuate the bowels. When a catheter was introduced, a considerable quantity of urine was in the bladder, but he had no sensation of fullness and no desire to make water, which was evacuated but once in the twenty-four hours. About nine months since, when the paralysis had not proceeded to any serious extent, he got married. The generative function had become gradually powerless. During all this time up to the present moment there was no pain in the head, and his intellectual faculties, instead of being injured, had become even stronger than before the epileptic seizures; his memory was excellent, and he could calculate accounts with great accuracy. There was no ostensible cause for the epileptic seizures. Marriage did not seem to have had much influence on the disease. His last attack of epilepsy was shortly preceding to the commencement of the paralysis. He had been a temperate, sober, and continent individual, and fond of the sports of the field. He (Dr. J.) wished to ask the opinion of the Society as to the cause of this disease? After the Members had given their opinions he would state the decision Sir A. Cooper and himself had come to.

Mr. H. Johnson said he had introduced the catheter for the patient in question, and had ascertained that at first on the failure of the generative function, the erection had been very imperfect, whilst he had a good emission. The emission had since entirely ceased, and the erection had acquired more power. The venereal appetite was almost entirely lost.

Mr. King considered that there was some organic disease of the spinal cord near the brain. Marriage had been recommended by some continental physicians as a cure for this affection. He (Mr. K.) had generally found it increase the disease.

Mr. Smith had heard of somewhat similar cases caused by excessive venery.

Dr. Addison inclined to the opinion of Mr. King, that there was lesion of the spinal marrow very high up, and possibly some growth pressing upon it. He had seen a case in Guy's Hospital, of a stout hale man, who had several epileptic fits, after which he became subject to a very singular kind of paralysis. He had loss of power in one leg, and loss of sensation in the other; but he ultimately recovered. He (Dr. A.) had met with cases in which a sort of exostosis had formed in the bony parietes of the spinal canal, arising from the use of mercury, and pressing upon the cord. There was often no pain in these cases.

Dr. Johnson said the opinion Sir Astley Cooper and himself had come to—was that there was some organic lesion at the upper portion of the spinal column, or posterior part of the brain; but they could not exactly ascertain what, whether *ramolissement*, *tumour*, or something else.

Cancer and Noli me Tangere.

Mr. Ure having been called upon, brought forward his paper on cancer and noli me tangere, in reference to a mode of treating these affections recently introduced into practice, and to propose a rationale of its action which he believed to possess some novelty. After entering into an elaborate disquisition on the etymology of various terms used to designate such affections, he proceeded to consider their classification by pathologists. He pointed out, that there were two grand types of malignant degeneration—each possessed of a peculiar structure—each offering uniformly the same anatomical elements, whatever may be the part of the body in which it is developed. One, the scirrhous or hard cancer; the other, the fungoid or soft cancer. The latter presenting three modifications, viz. the myeloïd, the melanoïd, and hæmatoïd fungus. He was of opinion, that malignant tumours might be viewed in a twofold light—either as the precursors of a constitutional affection, which by a reflex action would tend to their augmentation—or as the outward visible sign of a latent incurable disease.

In alluding to the insidious manner in which they destroy, extending by imperceptible degrees from the part first attacked to every surrounding tissue, he cited Ovid's lucid and precise definition, "Utque malumlate solet immedicabile cancer serpere, et illæsas vitiatis addere partes."

Mr. Ure next proceeded to expose the fallacy some writers had fallen into, in comparing cancer with gangrene, by shewing that in gangrene the work of devastation was limited by a line of demarcation, while in cancer there was a sort of indefinite corrosion. He stated, that the only constant character of this class of diseases is, that left to themselves they are not susceptible of cure. That they may remain for a long period stationary, but when once called into activity their tendency is ever fatal. That at a certain stage they occasion various aberrations of function, more particularly of nutrition; hence the emaciation, the loss of appetite, the hectic, and peculiar yellow or leaden hue of the complexion, usually the forerunners of death.

After having briefly adverted to the inutility and absurdity of seeking to elucidate by hypothetical reasoning, the cause of a malady that had eluded the sagacity of every inquirer, the author expressed a hope that the future labours in the field of organic chemistry, might enable the pathologist to arrive at a true explanation of the origin of these peculiar products of unhealthy action.

It is to be observed that to this department of science we are indebted for our only minute knowledge of the component parts of cancerous tumours.

An eminent French chemist has published an elaborate analysis, in which he proves albumen to be the principal constituent, scirrhus, containing 42 and medullary fungus 47 per cent. of that substance.

That the albuminous mass constituting these tumours differs from healthy albumen may be fairly presumed, according to Mr. Ure, although no one has been able to discriminate in what consists the morbid deviation. After some farther observations on this subject, Mr. Ure took a comparative view of the different modes of external treatment hitherto proposed. He observed, that it was generally admitted, that the only way to get rid of an incurable disorder is to remove from the body the affected part, provided that be possible. That for this purpose, extirpation by the knife, or by caustic, was generally practised. The latter method, however, was but little resorted to, as the caustics hitherto employed, were for the most part inefficient, either on account of the difficulties encountered in applying them, or from their not penetrating to the roots of the disease. Besides, the most powerful were the most dangerous. It is for this reason that in the majority of cases, surgeons have had recourse to excision: an operation most repugnant to the feelings of the patient, not unattended with danger, and frequently followed by relapse. Mr. Ure allowed that there were exceptions where the patient has survived many years the operation, but these were comparatively rare.

Mr. Ure called the attention of the Society to a paper published by him in the Medical Gazette last year, in which the chemical and therapeutical properties of a new caustic were described. The escharotic properties of the substance referred to, the chloride of zinc, had been pointed out many

years back by Sir H. Davy, but to Dr. Canquoin of Paris, the merit belongs of having first turned them to account in the treatment of carcinoma.

Mr. Ure pointed out in the above paper that chloride of zinc had a very powerful affinity for albumen. From the result of his experience, he conceives, that a part of the efficacy of that substance in eradicating from their remote ramifications cancerous tumours, is to be referred in some degree to the powerful action it exercises on albumen. For, when brought into contact with the morbid structure, whether in the formula of the flour paste of Canquoin, or the sulphate of lime paste proposed by himself, it becomes intimately combined with it, depriving it of vitality, and giving rise to an eschar, the size of which can be estimated previously with great definiteness.

Mr. Ure prefers the anhydrous sulphate of lime as a diluent to the chloride of zinc, because it imbibes moisture yet remaining dry; thus it protects the chloride from change, and forms a sort of porous medium from which the escharotic is permitted to transude into the diseased part.

The paste thus formed is purely local in its action. It rarely produces any surrounding inflammation or swelling, except when applied near the eyelids, where there is much loose cellular tissue. The eschar is generally detached from the eighth to the twelfth day, in an entire cake, (some of the large eschars were exhibited by Mr. Ure), leaving behind a healthy granulating sore, which heals with great rapidity.

Mr. Ure mentioned that in no instance where he has applied it over a large surface, has he known it occasion constitutional disturbance. On the contrary, the pulse remained natural and the skin cool. The pain accompanying its action, he described as being of a violent burning description, persisting with great intensity for seven or eight hours; after that when the surface exposed to it was fairly eroded, the pain became tolerable. An important point is, that the suffering is completely under the control of opium; a full dose of Battley's liquor opii seldom fails to soothe and give relief.

Mr. Ure next proceeded to specify the cases to the treatment of which the chloride of zinc is applicable. They might, with propriety, be classed into subcutaneous and cutaneous scirrhi, and carcinomatous ulcers, frequently termed noli me tangere. To the first belong scirrhous tumours, developed in the conglomerate or conglobate glands, or in the free cellular tisse, where the knife is inadmissible, or where, if it be not, the patient refuses to undergo a bloody operation. To the second belong the little round or ovoid indurations that are met with in the skin. They often remain for years indolent; sometimes, however, they ulcerate and become painful. When situated upon the face, they have been called lupoid tubercle. They are in fact simply a cancer of the skin, and if they are present without occasioning inconvenience, it is to be borne in mind, that they are implanted in a tissue possessing a low degree of sensibility. These superficial cancers may be either primary or secondary. The latter generally make their appearance in the neighbourhood of a cancer in the breast or rectum, and are to be regarded as the sure criterion of a cancerous diathesis.

Mr. Ure, after having described the characters of the cancerous ulcer, concluded by reading out of his case-book, the minutes of several cases of malignant disease, in which he had successfully employed the phagedenic paste of chloride of zinc with sulphate of lime. The first case was that of a woman, a patient in the Westminster Hospital. She had a scirrhous tumour in the left breast of the bigness of a hen's egg. It was the seat of acute lancinating pain. It was of three years' standing. Two applications of the paste sufficed to remove the tumour completely. Not long afterwards she left the hospital cured. The other cases were cancerous ulcers of long standing of the face, in some of which a single application of the remedy effected a cure.

ST. THOMAS'S HOSPITAL REPORTS.

Hysterical Paralysis.

Eliza Colligate, æt. 24, married woman, admitted into Mary's Ward, under Dr. Roots, Sept. 12, 1835. States that four years ago she had an attack similar to the present, but regained perfect power over the side affected. About twelve days since she was seized with great pain in the head, and vomited about a table-spoonful of coagulated blood. The pain in the head having continued two days, whilst sitting on her bed, she suddenly fell down insensible. She continued in this state for twelve hours, at the end of which period she recovered her senses, but the right side of her body was paralysed. For a long time she was unable to speak, and the pain in the head remained unabated.

On admission, the right arm and leg were perfectly paralysed, but the face was not implicated in the attack. The pain in the head continued, though somewhat less intense in character. The sounds of the heart were natural. Pulse 75, small. She was low spirited, cried at times, and complained of a frequent sensation of choking; having also tenderness of the epigastrium. Power over the bladder remained perfect.

℞. Hydrarg. c. creta, gr. v, ter in die. Applic. Hirurd. xx, epigastrio. Diæta lactis.

Sept. 15.—Has less pain in the head, but feels much disposed to sleep; tongue cleaner; bowels open; pulse unaltered; has still some pain in the epigastrium. Appl. Hirurd. xx, epigastrio. ℞. Hyd. c. creta bis die.

Sept. 18.—Sleeps well at night, and is drowsy during the day; pain in the head much diminished. Since the last report she has fainted several times, and is frequently attacked with globus hystericus; also, complains of palpitation of the heart. She has regained some power over the paralysed arm, but the leg remains quite useless; tongue clean; bowels open; pulse 78.

Sept. 22.—Has still some pain in the head, and feels drowsy. Has more power over the right arm, in which sensation is now nearly perfect; pulse 86; tongue cleaner; still some pain in the epigastrium.

Sept. 26.—Can move the right arm much better, but still has no power over the leg. She faints almost every day; pulse has increased to 98; the tongue is clean, and the appetite has returned. Diæta sicca.

Sept. 29.—Symptoms continue much the same; still some pain in the head and epigastrium. Applic. Hirurd. xvi, epigastrio. Juscul. bovin. Oij, indies.

Oct. 2.—Has perfect power over the right arm. She feels less drowsy, but has still some pain in the head; pulse 100. Omit. Hydr. c. creta. Adhib. empl. Canth. inter. scapulas. ℞. Infus. Valerian. ℥jss; Sodæ carb. ℈i; Spir. ammon. arom. ʒj; Tinct. hyoscyami, ʒss ter die.

Oct. 6.—Feels much better, but has no power over the leg, which she says feels numbed. C. C. ad ℥x region sacral.

Oct. 9.—Has a little pain in the head to-day. Still no power over the leg; bowels open; pulse 94. Diæta communis.

Oct. 13.—Is able to move the toes of the right foot, and is otherwise going on well. Cerev. ℔j, indies.

Oct. 16.—Is able to walk with assistance: appetite good. Lin. sinapis femori et cruri nocte maneque infricandum. ℞. Quin. sulph. gr. ij; Ferri sulph. gr. ij; Tinct. hyoscyami, ʒss; Acid. sulph. dil. *m* v, ex mistura camph. ter die. Omittantur medicam alia.

Oct. 21.—Rapidly improving. Has occasional fits of hysteria.

Oct. 27.—Is almost able to walk without assistance. Appearance improved; uterus continues inactive.

Nov. 3.—Is able to walk without assistance. Bowels rather torpid; has menstruated, though but scantily.

Nov. 6.—Was frightened by a case which came into the ward, and has had several fainting fits; complains of much pain in the lower part of the back. C. C. sacro ad ℥vj.

Nov. 10.—Is again much better, and walks without assistance.

Nov. 17.—Improving in health, and gaining flesh; there is still a tendency to hysteria, though the fits are now rare; walks nearly as well as ever she did. Presented.

Clinical Observations.—Dr. Roots.

I was not in town at the time this patient was admitted, and it was not until the 2nd of October that I, for the first time, saw her, and found that she had recovered almost entirely the power over the right arm. She still complained of some uneasiness about her head, but was much less drowsy. Her pulse continued to be 100; and by placing my hand over the whole of the abdomen, and over the chest as well, I found that there was an equal degree of tenderness over the whole of the trunk: in point of fact she was suffering under that peculiar morbid sensitiveness so common in hysteria. Seeing then that the pulse had become very much increased; that she was looking pallid; that there were still symptoms of choking about the throat; that she fainted occasionally; and, upon examining her spine, that there appeared to be a spot where she complained of something like tenderness: though I could not believe there was any mischief going on in the spinal chord, more for the sake of amusing her mind, and acting cautiously at the same time, I directed a blister to be applied between the shoulders; but not thinking that there was inflammatory action going on, I did not hesitate, in conjunction with a blister, to order one ounce and a half of infusion of valerian, one drachm of aromatic spirit of ammonia, and half a drachm of tincture of hyoscyamus, three times a day, with a scruple of carbonate of soda.

The report of the 6th states, "she is much better, &c. &c." It was then I learned that the menstruation, though in the first instance she stated it occurred at regular periods, yet had been very scanty for some time past; not, if I remember right, lasting more than a day at any one period. Believing it possible, and not only possible but probable, that there was some degree of congestion about the uterus, and which accounted in my mind for most of the symptoms, still, however, persevering with the use of a stimulant, and a slight tonic, I directed ten ounces of blood to be taken from the sacrum, by means of cupping glasses.

On the 13th, four days after being put on house diet, and after continuing for a week or upwards, the stimulus of the ammonia, with the infusion of valerian and the tincture of hyoscyamus, I found she was able to move the toes of her right leg, and that in other respects she was going on much better. I then thought it right to add to her diet a pint of porter daily.

On the 16th much improvement had taken place; her appetite was good; she had a return of sensation in the right leg

and thigh; and in order still to amuse her, I directed the linamentum sinapis to be rubbed into the right leg and thigh, night and morning. Seeing that slight tonics and stimulants, and better diet had, apparently produced a good effect upon her condition, I then altered her medicine, and gave her two grains of sulphate of quina, two grains of sulphate of iron, with half a drachm of tincture of hyoscyamus, three times a day; to be taken out of camphor mixture.

On the 21st she was improving fast, but had occasional attacks of hysteria.

On the 27th I found that she was almost able to walk without any assistance, and looking much better, though the uterus still continued inactive. In point of fact, she could walk with so little assistance, that I chose to guide her myself. Giving her confidence that she could have support, I am quite satisfied that she did not lean an ounce weight upon my arm.

She continued to get better and was presented, having entirely lost the paralysis, recovered very much her appearance, and gained flesh.

This is a case of considerable interest. You will remember I related to you, that, four years before, she said she had been the subject of a similar attack to the one for which she was admitted. How long it lasted I do not exactly know, because it is not noted down; but it is quite certain that she recovered perfectly the use of the affected side.

With regard to the symptoms, when she was attacked twelve days before her admission, she complained of great pain in the head, and stated she had vomited a tablespoonful of blood. Whether she did, or did not, I do not know; there was no proof of it; but, as it is asserted, I am bound to believe that she did vomit some blood. The pain of the head continued for two days, and then she fell into what is termed *a fit*, and remained insensible for twelve hours. During these twelve hours it is stated she remained perfectly still. On arousing from this state, she could not speak for some time after. However, it does not appear that much, or even any thing was done, but the power of speech returned, leaving behind not the slightest vestige of paralysis about the muscles of the face, or of the tongue. But at the same time that she lost the power of speech, she lost the power of volition over the right arm and the right leg, and also the power of sensation in them. In conjunction with these, you are to remember that she was low-spirited; that she cried at times; that she occasionally fainted; and complained of a choking pain in the throat, and of pain at the epigastrium.

What was the condition of the brain, or what was the condition of a portion of the nervous system, which gave rise to this paralysis? It is quite clear that it could not be connected with any thing like effusion; it is equally clear to my mind that it was not connected with any thing like inflammation. It is possible, nay, it is probable, that it was connected with some degree of congestion in a portion of the blood-vessels, which might produce some pressure; some impediment to the function of the nerves, both as regards volition and sensation. It is probable, that during the time that she was lying in a state of insensibility, having lost the power of speech, there was congestion in the vessels of the brain; and that congestion—supposing the state to have arisen from congestion—must have speedily given way of itself, because there is no proof of any thing being done to relieve her, and, consequently, there could have been no effusion; for you cannot imagine that effusion could have been absorbed so rapidly: neither can you imagine that there was inflammation, because inflammation is not likely to have given way without some active treatment. One, perhaps, in my mind, of the strongest reasons for imagining that there was congestion to a certain extent is this, that, tracing the history of the case before I saw her, I find she was leeched altogether three times during a period of between a fortnight and three weeks, and the pulse, when she came in, is stated to have been 75, but feeble: it remained 75, after even the first application of leeches to the epigastrium; after the application of the second, it became 78; from 78 it soon got up to 86, to 98, and to 100; and as the pulse became quicker, so did the paralysis of the arm diminish. It is, certainly, a most difficult point to account for the cause of that species of paralysis which does occasionally present itself to our notice in hysterical subjects; because we see that not only does it come on suddenly but that it often vanishes as speedily. Every one knows, that it is by no means an infrequent occurrence to find hysterical females suddenly lose the power of speech, or if they do not lose it entirely, they are suddenly incapable of speaking in any other tone than in the lowest whisper. I have seen many, many such cases: I have known many such cases last for six weeks, and in some instances for three months; various plans of treatment having been tried during that time, occasionally with apparent benefit, occasionally with none; and upon the occurrence, perhaps, of some sudden fright, the voice has returned perfectly natural. I have known it come on and remain for a fortnight, and then instantly vanish in consequence of a fright. It may be, then, that there may be some congestion of the blood-vessels there; and it may be, that the effect of a fright, where it is the means of relieving such a state of paralysis of the muscles of the speech, has been to drive the blood more quickly through the vessels, and overcome

any state of congestion in some of the vessels which has previously existed. I do believe, however, that some considerable influence over such a condition of paralysis exists in the state of the mind. It is true that it is difficult to imagine the mind to be in this morbid condition but through some morbid condition of those organs by which it is capable of manifesting itself. But still, it does not, I confess, explain itself sufficiently to my mind, to say, that in all these cases it is dependent upon some local congestion, some irregular distribution of blood, either by pressure on certain nerves, interrupting their functions; or by a less quantity of blood being sent to a part, rendering it more torpid than natural, and, therefore, unable to perform its functions.

It was curious to observe, with regard to this woman, a fact which is not noticed in the narration of the case, but which I will mention—how strong the influence of the mind was in aiding her recovery. For a length of time she was not able to do more than to move her toes, and gradually to draw up her leg. She seemed afraid; she had persuaded herself that she was perfectly incapable of doing it; but, on insisting that she should quit her bed and attempt to stand, telling her that she should be supported by people in the ward, she found that she really was capable of doing more than she had imagined. Still, there was that degree of hesitation, that degree of trepidation, in attempting to use the limb, which made it plain that it was the result, to a considerable extent, of mere fear. In order, then, to work upon her mind, I requested Mr. Clark, who has had the care of her as my clinical clerk, in her hearing, that if in two days no manifest improvement had taken place, he would put on a good blister over the loins, and over the right hip. I desired him not to put it on unnecessarily, but if he found no gradual improvement, then to resort to the blister. By means of the strong impression thus produced, at least, I am firmly persuaded such was the reason, she day by day improved, without the necessity of applying it at all.

You see that the treatment for the first period consisted in relieving the tenderness of which she complained at the epigastrium, by the application three times of leeches, and by giving her small doses of the hydrargyr. c. creta; not to the extent of affecting her mouth, but merely in doses, which might improve the state of her secretions generally. The treatment afterwards consisted simply in the application of a blister between the shoulders. You might say, probably, that there was some congestion about the spinal cord, but I do not believe there was. She was manifestly improved after taking the valerian, the aromatic spirit of ammonia, and the tincture of hyoscyamus; she was much more improved after applying the cupping-glasses to the sacrum; and, after that, I did not hesitate, as you see, to give her a more powerful tonic, viz., sulphate of quina and sulphate of iron, to order meat diet, and to give her porter.

What was the exciting cause here of her hysterical condition? Functional derangement, in my opinion, of the uterus. She was a married woman, and the uterus had either been over excited, or not sufficiently excited, I cannot tell which, but there was certainly derangement of its function; and that derangement produced, in my mind, that condition of the brain and nervous system, which gave rise to the hysterical paroxysms, and eventually to the partial paralysis. I think the case itself clearly shows that there was local congestion about the uterus, coming upon an enfeebled state of the body. We treated, in the first instance, the local symptoms of tenderness about the epigastrium; we treated the alimentary organs by endeavouring to regulate them with small doses of hydrargyr. c. creta. It is true that, under the exhibition of that remedy and the application of leeches, she recovered the use of her arm; but still remember that, during this period, she was the subject of frequent fainting: she was the subject of that peculiar phenomenon, *globus hystericus*, and occasionally of regular hysterical paroxysms. Upon relieving, however, the congested state of the uterus, by means of cupping-glasses; having also strengthened her general constitutional powers by means of the quina and sulphate of iron, the meat and the porter, she became less hysterical, she became much more healthy in her appearance, and she recovered entirely the use of her leg.

I am quite sure every one is aware, that in paralysis arising from any effusion having taken place in the brain, either from simple effusion or from rupture of a vessel in the brain, that the arm, the nearest point to the seat of the disease, is the last that recovers. You rarely see hemiphlegia arising from effusion taking place in a portion of the brain, I can almost say *never;* at least I do not myself ever remember to have seen it; but the recovery of the lower extremity long precedes that of the upper, and very often nearly perfect recovery of the lower extremity takes places, while there is not, perhaps, even as long as the patient lives, the slightest improvement in the upper extremity. It was quite clear, then, even from this circumstance, that there was no mischief going on or existing in the brain.

But while I say that, in this instance, all the symptoms were in my mind referrible to disordered function of the uterus, and that, in this particular instance, I believe there was a state of congestion about the uterus; yet remember I do not mean to imply that all cases of hysteria arise from any morbid condition of the uterine system. I think

that this is clearly proved, because in many instances you find the same train of symptoms existing, brought on and occurring suddenly in a person in previous good health, merely the result of mental emotion, of some fright, or of some disordered condition only of the alimentary canal, all which symptoms vanish upon the condition of the alimentary canal being restored to a healthy state.

With respect to the treatment of hysteria generally, as a matter of course it must depend upon the existing condition of the individual. If there be much general excitement, you will often do infinite good by taking blood from the arm, whereas, if there be much local excitement, you will do infinite good by local depletion, graduating, of course, the quantity of blood to be extracted according to the powers of the individual. In many instances, where it is connected with any thing like congestion about the uterus, I believe that one of the best means of relieving it is by applying cupping-glasses to the loins, or to the sacral region, or, as I have often been in the habit of doing in this hospital, by leeching the vulva. In this way I believe that the uterus is relieved speedily and effectually.

Occasionally, you will find that, in conjunction with evident signs of local congestion in the uterus, you have pain complained of on the occiput, and with that pain you have perhaps a degree of increased heat. Under these circumstances, I should not hesitate to apply cupping-glasses, or if that were not sufficient, abstract blood generally. I should apply cupping-glasses in the first instance to the occiput, and afterwards to the neighbourhood of the uterus. I should endeavour to relieve a symptom which perhaps might lead to more formidable mischief at once, and then address myself afterwards to what I believe the primary cause in many instances.

Purgatives are always of use in relieving hysteria arising from any cause. There is, generally speaking, a morbid condition of the alimentary canal; you have more or less flatulence, more or less borborygma; more or less disordered function of the digestive powers, and it is always right therefore to clear out the alimentary canal. I do not know a better purgative, under such circumstances, than turpentine in conjunction with castor oil; three, four, or five drachms of oil of turpentine, with half an ounce of castor oil. This is a warm, stimulating purgative, empties the bowels thoroughly, and by its stimulating effect upon the muscular fibres of the intestines, exercises a degree of tonic power over them, and prevents the enormous distension which so frequently takes place, especially in the colon, in hysteria. Occasionally, when the paroxysms are violent, where there is nothing to forbid it with respect to the head, and where you find excessive irritability of the brain and nervous system, after having relieved the symptoms without the necessity of even addressing yourselves to any local congestion, you will find opium of service, but then it should be given in a sufficient dose to allay the irritability of the brain and nervous system: say from thirty to forty, or fifty drops of tincture of opium. Of course you would not administer opium when you felt assured there was either much general excitement, or any great degree of local excitement; more especially if that excitement were in the brain.

With regard to a species of medicine which habit has accustomed us to prescribe in hysterical conditions, I mean fœtid medicines, you will observe that I exhibited a fœtid one here—I gave valerian. But valerian possesses, to a considerable extent, a tonic and a stimulating power; it contains a good deal of essential oil, and also some bitterness, and therefore, so far it may, in a debilitated habit, and in debilitated conditions of the alimentary canal, be occasionally of service. But I confess to you, that I believe the same advantage might have been acquired as regards its beneficial impression on the alimentary canal, by a little infusion of gentian, or of colombo, in conjunction with the aromatic spirits of ammonia and tincture of hyoscyamus. But my impression is, that one of the beneficial results of these fœtid substances in hysterical conditions, is the peculiar effect that they produce on the mind, through the medium of the olfactory nerves. You all know that nothing is more common, when a woman is hysterical, than to see her relieved for a time by the burning of feathers under her nose. It would be difficult perhaps to find anything much more disgusting than that. It is true that Cullen has endeavoured to account for the beneficial effect of fœtid substances in hysteria, by imagining that they produce a degree of sedative influence upon the brain and nervous system, somewhat like that which is produced by the inhalation of carbonic acid gas. Whether it be reasonable to account for it in that way or not, I do not know; but certainly you will find that these substances will occasionally produce benefit, while similar substances, even more active as regards their tonic power, but void of the disgusting smell, and therefore not making so powerful an impression on the mind, will not do so. I think, therefore, it is principally through this mode that, in hysterical affections, they are productive of any advantage. You can see readily the *modus operandi* of a dose of turpentine. You can see that while it clears out the bowels, as a powerful stimulant it is capable of producing local effects upon the whole of the alimentary canal. But I confess to you that it is very difficult for me to imagine valerian, or assafœtida or castor producing their effects

by any other mode than through the impression they make on the mind by their disgusting impression on the olfactory nerves.

In this case you will observe that, taking into consideration the general want of power, I did not hesitate to give a more active tonic than at first, viz., the iron and the quina; but remember I was treating this particular case. It is not in every case of hysteria, that, when you have subdued any local congestion or general excitement, the exhibition of tonics is either called for, or would be proper; it would be absurd to resort to the use of tonics or stimulants, unless they were called for by the absolute debility of the constitution.

I know not—for, in point of fact, we are quite ignorant of the real pathology of hysteria—we do not know the positive condition of the brain and nervous system. We know that occasionally it is accompanied by such a condition as manifestly shows that there is local excitement, and that there is perhaps local congestion, and, therefore, it is to be treated as such; but again, we do often find this peculiar train of symptoms without the slightest evidence of local congestion, or local excitement, and therefore I am led to the inference that, occasionally, the mind is so influenced in certain conditions of hysteria, as to prevent it exercising for a time the power of volition over certain muscles dependent upon the will. It is true that this will not at the same time account for the loss of sensation, but I can easily conceive such a condition may exist, that the patient feels it useless apparently to direct the will—"I can't do it, I can't move the limb." But without any remedial means, other than making a strong impression on the mind, as was made in this case by the threat of a blister, the patient does overcome the difficulty; she endeavours to direct the will to the muscles, and the muscles do, to a certain extent, perform their office. I have seen the effect of a strong impression on the mind in many instances, but in none more remarkable than in a case which I had years ago under my care in St. Pancras Infirmary. It occurred in a young woman, who, by the bye, had been in this hospital, and in every hospital in London. She had been for many years first in a hospital at this end of the town, and then in one in another, and I believe there was not a hospital in London in which she had not been two or three times, and in some instances for eight, nine, or ten months. She was the subject of the strongest hysterical paroxysms which I think I ever witnessed, and I succeeded in always putting a stop to them coming on whenever I was at the Infirmary, though she would have them occasionally in my absence, if the nurse of the ward did not resort to the same means as myself. I remember on one occasion, during the strongest of her hysterical paroxysms, ordering a large blanket and a pail of water, dipping the blanket in the water, removing her clothes, and throwing it over the abdomen and thighs. She was instantly relieved of her hysterical paroxysm, and though she was for months together, at different periods, during ten or eleven years, under my care, yet never did she after that day have a fit. When I was going round, I had nothing to do, or the nurse had nothing to do, but to say, "Fetch a pail of water and a blanket," and the fit was off for that time. It is true it might occur in the evening, but so strong was the influence of the mind upon that peculiar condition in which an hysterical paroxysm consists, that by merely making a strong impression on the mind, she never had a paroxysm at the moment it was resorted to.

Weymouth and Dorchester Medico-Chirurgical Book Society.

We are happy to observe the establishment of a Medical Society at Weymouth and Dorchester. We hope to speedily observe this good example followed in every populous town in the kingdom.

Poor Law Contracts.

Meetings still continue to be held, and Petitions forwarded from various parts of the country, against the iniquitous contract system. We are sorry that we cannot yet announce any sympathetic movement in the Metropolitan Practitioners.

BOOKS.

The British and Foreign Medical Review, or Quarterly Journal of Practical Medicine and Surgery. Edited by John Forbes, M.D., and John Conolly, M.D. No. 11, April.

The Cyclopædia of Anatomy and Physiology. Edited by R. B. Todd, M. D., Part VI.

Factory Statistics.—The official Tables appended to the Report of the Select Committee on the Ten Hour Factory Bill, vindicated in a series of Letters addressed to John Elliot Drinkwater, Esq., one of the Factory Commissioners. By the late M. T. Salder, Esq., Chairman of the Committee.

Medical Commentaries on Puerperal Fever, Vermination, and Water in the Head. By John Alexander, M. D.

An Introduction to Phrenology, in the form of Question and Answer, with an Appendix and copious Notes. By R. Macnish, M. D.

The Physiology of Digestion considered with relation to the Principles of Dietetics. By Andrew Coombe, M. D. &c.

This is an admirable companion for the Author's Physiology applied to Health.

Encyclographie des Sciences Medicales. Public. Soces. la Direction. De M. Marinus, t. xii.

THE

London Medical and Surgical Journal.

No. 17. SATURDAY, MAY 21. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE X.

Morbid Affections of Nerves.

Disease, as I have before intimated, and, indeed, which is too obvious to require intimation, implies necessarily nervous derangement, since the nerves are the organs of sensation, and, in one sense, all disorder attended with pain might be designated a nervous disorder. In the few meetings preceding the present, it has, however, been my aim to shew the qualification which this notion requires in pathology and practice—and I have called your attention to phenomena, which, even allowing that the nervous organization was the first point of *appui*, very shortly spread out into vascular, and glandular, and other disorders, in such sort as to constitute them rather morbid conditions of these several tissues and organs, than of the nerves themselves.

But when these derangements fix, as it were, upon the nerves, and shew all their force and malignity in affecting sensation or perception, then it is that we have presented before us what all would admit to be legitimately called a nervous ailment; and it is to these generally, but superficially, that our regards are now to be turned.

Nerves are affected in a twofold manner—structural or functional—that is, the altered sensations that occur as a consequence of sentient impression, may be either the manifest results of organic mischief, or may be present to a vast and well-nigh unlimited extent; and in multiplied forms and sorts, without either the knife of the anatomist, or the ken of the pathologist, being able to detect the precise nature, or even locality of the induced deviation from health: and it is to the last of these ailments that I am anxious to draw your attention, inasmuch as I imagine medical philosophy scarcely recognizes the principle of dynamic alteration, independent of mere structural or material change. "In corpus *vivum* agunt medicamenta," was a favourite axiom of the celebrated Brown, and he might, indeed he did, apply the principle as well to disease-creating as to medicinal powers and processes; and much of subsequent reasoning would have assumed a more philosophical character than it has, had it been without the notion of a *materies morbi*. Here the homœopathists are superior to the allopathists, inasmuch as they steadily fix their view upon *power* rather than matter; and, without reference to any system, I have always, in my own writings and lectures, requested my reader or hearer to recognize fully this important law of living circumstance in all its modifications*. Let me shortly illustrate. An individual shall be the subject of some derangement (it matters not what, of the nervous system); he will fall perhaps down senseless on the floor; upon his recovery, a large quantity of very offensive matter shall be discharged from the bowels. Oh! here, say the ventricular, or hepatic, or membranous theorists, we find the source of this nervous derangement: and now the offending matter is got rid of, the malady declines of course. It is not so; this matter has been the result, not the excitant of the change which first takes place in the nervous impulse. We grant you that its retention might react upon, and thus complicate the disorder; but if we judge rightly, we shall look up higher than the stomach or bowels for the explication of the morbid shewing.

Let it be recollected that the hearing a distressing piece of intelligence, or the seeing any thing unexpectedly, of a nature to shock the feelings, will instantaneously change excretion from a bland and sweet, to an acrimonious and fœtid discharge; and

* I got to myself a great deal of obloquy, I recollect, when conducting the Medical Repository, for venturing to discountenance the bold bleedings in fevers, which were then, much more than they are now, very fashionable.

this change is obviously, then, merely, and altogether, *dynamic*.

In the present lecture, however, I shall treat of structural or organic as well as of dynamic change; and, in reference to the first particular, I will avail myself of the observations of my old friend and fellow student, Dr. Abercrombie of Edinburgh, who has acquired that high reputation and large practice which his labours and merits entitle him to.

"The pathology of the nerves," says Dr. A., "is entirely in its infancy, but the investigation seems to promise very interesting results. From what we already know, there is every reason to believe that nerves are liable to diseases analogous to diseases of the brain and the spinal cord, which may affect them either in their substance or membranes, and are probably the source of several diseases, which are at present involved in much obscurity.

"So far as this subject has hitherto been investigated, the following may be considered the principal idiopathic diseases of nerves, which have been observed—

"1st. A uniform dark colour of the nervous substance occupying a defined space, perhaps an inch or two in extent. This was observed by Martinet (Revue Medicale, Juin, 1814), in the median nerve, in a case in which there had been violent pain in the fore-arm, followed by palsy." Here I think it important to remark, that in many cases of palsy, which is another word for *adynamia*, that want of due action which constitutes the disorder, may exist without any reference to the cerebral brain as a primary cause. I make this remark because it is too much in course with us generally to regard palsy as connected with pressure on the brain, when, in point of fact, the brain may not have had any share in the production of the disorder: further, I may remark—and I intend more particularly to exemplify this principle in the next section of my course—that even where brain disorder has thus deprived a limb, or a part, of power, the interruption of nervous influence which such deprivation implies, is to be attributed often to a very different condition of parts from any thing that can be entitled to the appellation of pressure; and I am here tempted so far to deviate, and to anticipate what will afterwards be more amply dwelt on, by stating, that in Mr. Mayo's pathological works a great deal will be found of the highest interest to the student, in reference to brain and nerve pathology. I had the pleasure, not many months since, of hearing Mr. Mayo's lectures on the cerebral system, at the King's College, and I was, and could not but be, struck with the vast difference of these lectures from those which were considered of the best order at the time of my pupillage. In physiology and pathology there has certainly, within the few past years, been a most material "movement," and quite commensurate, to say the least, with all other advances of an intellectual cast; and the individual to whom I have in this way particularly alluded, seems to me to deserve even more credit than he has gained, especially as it respects researches into the laws and functions of the brain and nerves. If these remarks should happen to fall under his observation, and he be offended, I cannot help it; I merely state what I think, and what I have seen, and have no other intention than giving honour where honour is due.

The second morbid condition of nerve that Dr. Abercrombie notices, is that of "a serous or bloody effusion within the sheath of the nerve." Martinet mentions this as occurring in the sciatic nerve, and producing great pain in the posterior part of the thigh.

Thirdly—"Pus effused in the same manner among the fibrils of the nerve." Two cases are related of this by Martinet also, which produced great pain in the course of the sciatic nerve, and in one, "a painful feeling of numbness extending from the ham to the top of the thigh."

Fourth—"Ramollissement of the nervous substance." Descat gives a case of amaurosis from this condition of the optic nerve, and I have myself, within the last few days, lost a patient in whom, had we been permitted to examine the brain, there would, I feel assured, have been found the same morbid alteration in this nerve. It is, I may by the way remark, by no means an uncommon thing to find amaurosis supervene on insanity; and when this does take place, the malady generally first extinguishes intellect, and then terminates life. I do not mean that the insanity leaves, and then amaurosis takes place; my observation merely goes to this—that in cases of long continued insanity, the occurrence of amaurosis is to be looked on as indicative of a commencing disorganization in a portion of the brain, which is likely soon to extend to other parts of the cerebral mass, and to extinguish the life of the patient.

Fifthly—"Ulceration in the substance of the nerve in connection with a fungous ulcer in the leg," has been mentioned by Mr. Swan, and quoted by Dr. Abercrombie. In this case Mr. S. tells us that the nerves generally of the limb were found much enlarged; the pain here, through the whole of the leg and thigh, was intense.

Sixthly—Small tumours are found sometimes attached to the nerves, as pointed out by various writers. Portal states that a female was cured of epilepsy by the removal of a tumour from the thumb. Before the swelling was extirpated, pressure upon it would sometimes bring on an epileptic fit. It is suggested that the safest mode of dealing with these excrescences, is to remove

the whole portion of the nerve with which the disease is implicated. Pring mentions one of these tumours as growing to the size of a pigeon's egg. This was cut out from the arm, and the lost muscular and sentient power in a great measure was restored by the operation.

Seventhly—Nerves are sometimes much enlarged, and at times much diminished; sometimes a mere membrane supplies the place of true nervous substance, and this membrane is formed into a hollow tube. Nerves immediately connected with the brain are often seriously affected by inflammation in the nerve itself, or its investments, or by neighbouring tumours compressing the branch and causing loss of action and of feeling. These irritations and their consequences being occasionally the results of accidents, and at other times connected with morbid conditionsspontaneously originating. Caries of the teeth frequently cause much mischief to neighbouring nerves, by inflammations and tumours thence arising.

"Little has hitherto been done," says Dr. Abercrombie, "on this curious and interesting subject (local disorders of nerves), but it certainly promises most important results when it shall be more extensively cultivated; for we have reason to believe that both the nerves themselves, and their investing membranes, are liable to affections which may be the source of many obscure diseases. It is now upwards of fifteen years since I first saw a girl, at that time about eighteen months old, and previously enjoying excellent health. She had been left for some time sitting upon damp grass, and was immediately seized by fever, accompanied with such a degree of oppression as led to an apprehension of affection of the brain. These symptoms, however, passed off in a few days, and on her recovering from them, it was found she was entirely paralytic in the right lower extremity. She has from that time enjoyed uninterrupted health, and is now a big and strong young woman, but the right lower extremity has continued entirely paralytic. It is also a great deal smaller than the other extremity, and several inches shorter. All the joints are remarkably relaxed, and the muscles flaccid, but there is no other appearance of disease in any part of it, or in the spine. Very lately I was consulted about a young man, aged fourteen, who had nearly lost the muscular power of both his arms, accompanied by most remarkable diminution of substance of the principal muscles. The deltoid and biceps are reduced to the appearance of mere membrane, and the same affection extends, in rather less degree, to the muscles on the scapula. The muscles, however, in the fore-arm, are full and vigorous. No disease can be discovered about the spine, and in other respects he is in perfect health. The affection has come on suddenly, and cannot be traced to any cause."

Precisely such a case as this I have been consulted about in my own neighbourhood; and we must agree with Dr. A. in the admission that they are difficult of explanation; but the local affections which he assumes, may even here at times be rather functional or adynamic, than structural or organic; and the following cases, which he adduces in support of his views, scarcely, I think, present evidence sufficiently strong to substantiate the assumption of local disorder in the manner our ingenious pathologist presumes.

"I have been consulted," he says, "about a singular disease which occurs in paroxysms, and affects in the same manner two individuals of one family—a young lady of twenty-five, and a young man of twenty-two. The lady describes the attack in the following manner:—She is first affected with blindness in one eye (the right), which comes on gradually as if a cloud passed over the eye. About a quarter of an hour after this she feels a numbness of the little finger of the right hand, beginning at the point of it, and extending very gradually over the hand and arm, producing a complete loss of sensibility of the parts, but without any loss of the power of motion. The feeling of numbness then extends to the right side of the head, and from this it seems to spread downwards towards the stomach. When it reaches the side of the head she becomes oppressed and partly confused, answers questions slowly and confusedly, and her speech is considerably affected; when it reaches the stomach she sometimes vomits. The feeling of numbness then begins to subside; and, as it goes off, she is seized with violent headach, which continues for several hours, and leaves her for a day or two feeble and languid. The progress of the feeling of numbness from the little finger to the stomach sometimes occupies several hours, and the common duration of the whole paroxysm is about twenty-four hours. The frequency of its occurrence varies from a few days to several months; she has been liable to it for several years, but in the *interval between her attacks she enjoys perfect health.*" (I wish you, gentlemen, to mark this feature of the complaint.) "Her brother, who is twenty-two years of age, is affected almost in the same manner; and he has been liable to the paroxysm for several years. He is a banker's clerk; and in the interval between the attacks enjoys perfect health. When he feels the commencement of the attack he hastily brings to a conclusion any business in which he may be engaged, gives distinct instructions to another clerk in regard to the state in which he leaves the affairs of his depart-

ment, then walks home, goes to bed, and soon after becomes insensible. Next day he is in his usual health, except a considerable degree of languor."

Now, it does not, I confess, appear to me that these curious cases demonstrate local disorder beyond that of functional interruption. Were there any topical circumstance of a structural kind, we should not expect that complete suspension which occurs in these instances of morbid action. The affection, indeed, may be considered as a species of epilepsy—a disorder in which we have violent commotion in the motive parts of the system, entirely inexplicable by any assumption of local causation, and in which the dynamic powers are interfered with in an inscrutable manner. We know (and to this subject I shall shortly recur), that a tight ligature will prevent the travelling of an epileptic aura, as it is called, through the course of a nerve up to the brain, where, when it arrives, it causes a commotion of the frame almost analogous to an electric discharge from a battery; but we cannot suppose any alteration in the actual structure of that part of the nervous cord which appears to be the point of attack; there must be some change, I allow, but change of action does not imply altered structural condition; it merely denotes difference in the measure or degree of power. The mode in which this altered susceptibility takes place is, we must admit, incapable of being made manifest; but so is electricity, and so are many occurrences, both in the animate and inanimate world, which in their effects are sufficiently substantiated. Inflammation, which is so much spoken of in the present day, affords no solution of the mystery; indeed, the transient nature of the change, and the sudden occurrence and disappearance of the phenomena, are quite at variance with the notion of inflammatory action either taking place in the nervous substance, or in the fine membrane with which the nerve is encompassed.

But let us recur to our ingenious and able author. "The affections of internal nerves present a subject of still greater difficulty; and the observations which have been made with regard to them, are, at present, far from being satisfactory. Lobstein (De Nervi Sympathetica fabricâ, usû et Morbis) thinks he has acertained the existence of inflammation in the great sympathetic nerve; and to this source he refers many obscure diseases, such as violent hysteric affections, sympathetic affections of the heart, spasmodic cough, colica pictonum, angina pectoris, and many obscure affections of the stomach and bowels. In the same manner he explains the fatal effects which are produced by blows on the stomach, and the severe symptoms both in the head and in the general system, which often arise from worms and from other disorders of the bowels. In a lady, who died of urgent vomiting, with burning pain on the spine, and on the right hypochondrium, he found the semi-lunar ganglion in a state of intense inflammation, and the lower part of it livid. In a boy who died with great oppression of the chest, and distension of the epigastrium supervening upon the retrogression of miliary eruption, he found deep inflammation of a part of the trunk and left intercostal nerve, and of the ninth and tenth thoracic ganglia." But here I may remark that the nervous symptoms were not fugacious, but permanent; that death was the consequence of the disorder; and that it is more than probable the vascular commotion, as shewn by the *post mortem* examination, was the consequence rather than the occasion of the primary disturbance in the nerves.

I shall afterwards have occasion to call your attention to tetanic affections where the spinal cord is very vascular, or at least very much discoloured, after spasmodic conditions of the most frightful and appalling kind; but which condition I shall aim to prove might as well be recognized as subsequent to the spasms, than as the cause of them; even Dr. Abercrombie himself admits that the speculations of Lobstein must be received with caution, especially as nothing is more precarious than morbid changes, consisting of mere changes in colour of parts, *without any of the actual results or terminations of inflammation**.

"We must forbear," he very properly says, "to speculate where we have not facts before us; but it appears extremely probable," and here I would go all lengths with him, "that there are diseases of internal nerves which may be the source of important morbid phenomena. Descot exposed the *par vagum* upon the neck of a dog, and bruised it on both sides slightly with a pair of pincers; the wound healed favourably, but the animal was affected with general tremors, difficult and laborious breathing, vomiting, great debility, and wasting. The vomiting subsided, and the other symptoms were diminished, but he had not recovered a natural state of his breathing, when he was killed, at the end

* In one of the early volumes of the Transactions of the Medico-Chirurgical Society, Dr. Yelloly points out very ably and usefully the mistakes that are often made, by inferring inflammation during life, from changed colour upon *post mortem* investigation; his remarks especially apply to appearances in the villous coat of the stomach, and are partly for the purpose of inducing caution respecting the inference of poison; but it is not to this part alone that the judicious intimations of Dr. Y. may be made applicable.

of three weeks; the nerve of the left side, where the injury had been inflicted, appeared slightly increased in size, and was of a yellowish colour; and, on the right side, appeared decidedly enlarged, highly injected, and adhering to the neighbouring parts."

Most of the above cases are cited by the respected author from whom I have quoted them, as illustrations of the important principle that it is requisite, when investigating the nature of an obscure disease, to endeavour at ascertaining whether there may not be some lesion of structure in one or more of the nervous branches. And so far they are well. But always let us be alive to the fact, while studying and practising medicine, that a vast affection may fasten upon nervous substance, or rather exist in some portion or the whole of nervous ramification, which neither dissection nor the most minute research shall be able to expose or explain the precise nature of; and which, nevertheless, shall be enough to change the whole habits and susceptibility of the body in such sort as to regulate the action of medicinals, to modify the agency of even the most ordinary stimuli, and thus render pathology a science, as it were, moral and metaphysical, as well as physical and tangible. Now, I had intended on this occasion to specify and comment upon this peculiarity of sentient being, to present before you some instances in which the complexion and character, and transient nature and inexplicable complication of induced maladies, all form so many objections to the inflammatory theories, as also to the influences of some remedial agents: and in these those practitioners are, according to my judgment, most rational, and, according to my observation, most successful, who free their minds from anything, at least primarily, beyond dynamic considerations; I had, I say, contemplated the mention and consideration of these conditions, but I find the completion of my design would occupy your attention too long. I must, therefore, here break off, and in the next lecture recommence this very interesting subject, which presents a physiological and pathological field for culture, upon different principles from those ailments and lesions that have hitherto occupied our regards.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XVI.

Gynæco-Physiology—Physiology of Woman.

The presence of menstruation is vernacularly designated "the courses, the change, the flowers, nature, indisposition, periodical or female health;" and among the middle and lower classes, the woman is said to be "ill, unwell, out of order, to have a change, to be regular, or to be well in certain respects, or to be poorly."

The eruption, or first appearance of the menstrual discharge or catamenia, generally occurs, in temperate climates, from the twelfth to the sixteenth year; in the meridional nations from the eighth to the twelfth year; and in the polar regions from the fifteenth to the twentieth year. It has occurred in this country so early as two years and a half (Lond. Med. and Physical Journ. vol. xxviii); at eight years and a half (Op. Cit. 1810, vol. xxiv); and between the third or fourth year (Sir A. Cooper, Medico-Chirurgical Transactions, vol. iv). In Abyssinia, girls are said to be fecund at the ninth year; in Turkey in Asia, and Arabia, at ten; in India, at nine; in Turkey in Europe, at eleven; in Italy and Portugal, at twelve; in France, at thirteen; and, in this country, from thirteen to fifteen. There is a case of a girl recorded in the Mem. de l'Academie des Sciences, who was a mo-

ther at the age of ten years. I have known three mothers in this country at the age of thirteen. Mardelshof relates a case, in India, in which the breasts began to develop at the third year, menstruation occurred before the fourth, and the individual was a mother at the fifth. This report I consider unworthy of credit. M. Velpeau has known it occur in Paris from the ninth year and a half to the twelfth; he does not agree with those who have said menstruation may commence at birth, which he very properly thinks, with Nægele, was the result of disease; neither can he credit the case lately published at Havannah, in which the infant was said to have had the discharge at the eighteenth month, and regularly every month afterwards. She had all the characters of puberty. A case is recorded by Dr. Wall, in the second volume of the Medico-Chirurg. Trans., of a girl who had begun to menstruate at nine months, and had continued regular from that time; his words are, "Quod fluxus menstruus, primum cum jam erat vix novem menses nata, et singulis mensibus usque ad presens tempus, erupisset." A case nearly similar is described in the Archives of Meckel, in 1827, and copied into the Lancet. A few drops appeared at the ninth month, and at the eighteenth there were hairs on the pubis, and the breasts were considerably developed.

Some travellers assert that girls have been mothers in Turkey at the sixth or seventh year. Dr. Prideaux states that Cadisja menstruated at the fifth year, when Mahomet espoused her, but did not consummate the marriage, until she was eight years old. This is a popular account, as it is recorded in the Koran, that she was over forty years of age when she became the wife of the prophet. Van Swieten relates that he had seen a child who menstruated at the age of a month, though of a delicate habit; she was nubile at seven, married at nineteen, and had several children. This case is extraordinary, as menstruation is generally more precocious in plethoric than in delicate girls. Osiander, of Gottingen, has recorded one hundred and thirty-seven cases, in which nine women menstruated at the twelfth year, eight at the thirteenth, twenty-one at the fourteenth, eleven at the seventeenth, thirty-two at the fifteenth, twenty-four at the sixteenth, eleven at the seventeenth, eighteen at the eighteenth, from ten to twenty at the twentieth, one at twenty-one, and one at the twenty-fourth year.

The quantity of secreted fluid afforded during menstruation varies in different climates. According to Hippocrates, twenty ounces were discharged in Archipelago; eighteen ounces, according to Galen; from six to twelve, according to Haller: from four to six ounces in this country; but the quantity will depend upon the physical and social habits of the individuals. Women often die from excessive menstruation in Java; while in Lapland and all polar regions the discharge is exceedingly trifling, and recurs but twice or thrice a-year. The quantity will vary according to an infinite number of circumstances relative to temperament, climate, aliment, diseases, &c. Thus, the opulent and luxurious citizen will lose more than the peasant, the Caffres and Hottentots than the Laplanders. The Dutch menstruate abundantly, in consequence of placing warming-pans between the lower extremities during winter; and cooks and others often suffer excessive overflow when exposed to a high temperature, as in kitchens and manufactories.

Pliny and his contemporaries maintained that the catamenial fluid was poisonous—a most ridiculous opinion, though in some degree supported by M. Velpeau, who agrees with Pliny, Columelle, Bonaciole, and the Arabians, that the miasm arising from a woman during menstruation is capable of decomposing milk and other fluids; and, finally, that blood retained in the genitals for any length of time acquires more or less deleterious properties. He forgets that the catamenial fluid is not blood, and has been retained for years, in cases of imperforate hymen, without producing the slightest local

irritation or disease. In a woman aged sixty-six years, in whom the vagina was obliterated, the womb was largely distended, and contained a litre, about thirty-two ounces of viscid menstruous fluid (Berard, Clinique des Hôpitaux). The same fact is attested by Amand, in two cases. Many other authorities might be cited on this point. Albertus Magnus was of the opinion, "that menstruating women were poisonous, so that they intoxicated animals by looking at them, they killed children in the cradle, they spotted a clean glass, and whoever had congress with them became leprous, and sometimes cancerous, and therefore intercourse should be carefully avoided during menstruation." (Alberti Magni de Secretis Mulierum, &c. 1687.) These notions were borrowed from the Jews, who ordered menstruating women to be separated from society. It is true that certain women exhale a peculiar odour during this function, especially in warm weather, and when cleanliness is neglected. The fluid may be irritating, and excoriate the labia and vagina, similar to the mucous secretion in certain kinds of leucorrhœa, and even produce slight urethritis in the male.

It has also been remarked that the menstrual secretion is pale in scrofulous women, darkish and fœtid in scorbutic, and acrimonious in cancerous and other malignant ulcerations of the uterus. We observe many cases of this kind, both in public and private practice. But we must not confound the morbid with the healthful condition of menstruation; and every one knows that in the latter state, the secreted fluid is innoxious.

The uterine fluid differs in its chemical and physical properties from blood (Brand, Phil. Trans., c. ii); it possesses no serum, but albumen combined with colouring matter (M. Toulmanche, Arch. de Med., Dec. 1829; Lond. Med. and Surg. Journal, 1830, vol. iv, p. 78); (M. Thenard, in 1817); it possesses no fibrin (Lavagna).

The menstrual fluid is of a reddish brown colour, much darker than arterial, and redder than venous blood; is sparing on the first day, its quantity is increased on the second, it diminishes on the third, and ceases on the fourth or fifth. The discharge is most abundant in some women on the third, fourth, or fifth day; in others, on the first or second day. In some instances it ceases for a day and returns on the next. This interruption is often observed in hysterical women. It usually escapes in drops, but is sometimes so profuse as to flow on the ground. Each menstruation may be accompanied with severe pains in the back, loins, uterus, and rectum, and a sense of weight or bearing down in the lower bowel, more especially in aged unmarried women, or in hysterical old maids. In such cases there is painful menstruation, which may depend on narrowing or complete closure of the orifice of the womb by spasm, which may be ascertained with the finger. In a few cases there will be induration or excessive smallness of the uterine aperture, which may be dilated with metallic bougies. I attended an unmarried lady in the highest rank in life in 1835, who laboured under ovarian disease on both sides, and also disease of the rectum. She suffered most acutely for the fourteen preceding years, from painful menstruation, which was accompanied by the most intense hysteria and spasm in the uterus, ovaries and rectum. This was so severe that the orifice of the womb was completely closed by it—a fact I repeatedly ascertained with the finger. She remarked that for some hours after these hysterical and spasmodic attacks, there was no menstrual evacuation, and it returned profusely in the course of the day or night. She suffered most severely on the second day; and she continued to menstruate in this manner for five, six, and eight days. She was successively attended by some of the most eminent physicians and surgeons of this metropolis, and all declared that there was no cure for her complaint; and that free doses of morphia or

opium were the only remedies to palliate her agonies. Dr. Baillie, Dr. Warren, Sir H. Halford, Sir A. Cooper, Sir B. Brodie, Dr. Merriman, Dr. Locock, and Mr. Salmon, attended this lady in succession. I commenced the use of metallic bougies with a view of dilating the orifice of the uterus; and I finally succeeded in passing number eight. It was highly gratifying to learn, that on the next periodical evacuation she was perfectly free from pain during the continuance of the function. This plan was continued for three months; but the hysteria, spasms, and uterine pains returned, though with less severity, which was anticipated from the advance of her other diseases. In some women there is neuralgia of the uterus or its cavity, or irritable uterus; and in such cases false membranes are often expelled with painful menstruation, as noticed by most obstetric authors, and lately by Chaussieur and Burns. Denman, Hamilton, and Dewees, have remarked that women thus affected are sterile. Mojon explains the cause of infecundity, and considers it to be imperviousness of the uterine orifices of the tubes, by the false membranes. It has also been long observed that prostitutes and women who abuse coition, are generally sterile from this cause. The menstrual evacuation recurs every month, as its name indicates, sometimes sooner and sometimes later; it has returned every tenth day, from the twelfth year to the fortieth, and the patient in good health (Dewees); it has appeared every twelfth day, and in one case the woman was almost always menstruating, though in good health, but thin and of an extreme sensibility (Velpeau). It is important to state that some women menstruate on the thirtieth, thirty-fifth, or fortieth day; others every second, third, fourth, or sixth month (Linnæus), without any inconvenience; and the latter instances are common in Greenland, Lapland, and other cold countries. The quantity evacuated is very trifling, in some under the adult in age; but becomes considerably increased by the use of marriage. It is also profuse and excessive; in some causes great debility, and often temporary sterility.

It was stated by Gall, that the recurrence of menstruation was from the first to the eighth day, or from the eighth to the fifteenth; but this assertion is now considered unworthy of credence. The same woman may menstruate on any day in the week or month; and, when pregnant or a nurse, ceases to enjoy this function. Again, the periodicity of the catamenia was ascribed by Aristotle, Van Helmont, Mead, and Roussel to the influence of the moon; and hence the adage, "*Luna vetus vetulas, juvenes nova luna repurgat*"—"The moon purges old women in its decline, and young at its commencement." This opinion is controverted by the fact that the same woman may menstruate in the different phases of the moon, in the course of many, or even a single year. If menstruation depended upon lunar influence, all women should have the discharge at the same time, which every medical practitioner knows is not the case.

I fully assent to the following position of Dr. Ashwell: "I believe it to be one of the instances in which the researches of able and intelligent men will terminate in their tracing it to the will of the Creator; or, in other words, they will regard it as a law of nature, that the fleshy uterus of the human female shall once every month, by a secretory action, produce a certain sanguineous fluid, just as the liver secretes bile, and the kidney urine." It is exhaled by the capillary extremities of the uterine arteries through the mucous membrane.

The use of this secretion is to fit the womb for fecundation; its suppression during pregnancy allows the organ to take on a new action for the nourishment of the fœtus; it is also suppressed during lactation or suckling, for the same reason. There are, however, exceptions to all these statements, as conception has happened before menstruation; and the latter has occurred

during utero-gestation (Mauriceau, Deventer, Haller, Heberden, Hossack, Fodéré, Capuron, Francis, Dewees, Mayo); and every one knows, during lactation. It is on record that many of the women in Greenland do not menstruate though they bear infants; but this assertion is, I think, very doubtful. It is not the absence of menstruation, amenia that causes sterility in all cases, though women thus affected are generally sterile on account of some defect in the genital organs.

Cessation of Menstruation—Senile Sterility.—The menstrual secretion ceases, in temperate countries, about the forty-fifth or fiftieth year, sometimes so early as the twenty-fifth (Haller, Dewees, Velpeau); and again, not until the fifty-fifth, sixtieth, sixty-fifth. I have heard of a woman delivered in her sixty-third year; at the seventieth (Richerand, Magendie); eightieth, ninety-fifth (Haller, Velpeau); Lond. Med and Surg. Journ. 1830, vol. v. p. 338); and one hundredth (Blancardi). Desormeaux has known it continue from the sixtieth to the seventy-fifth year. M. Velpeau knew a woman, aged twenty years, who had ceased to menstruate at eighteen, and who enjoyed excellent health. Another, aged thirty-two, who had lost the function at the age of twenty-one years, without any inconvenience*. The function ceases in some, and returns at a later period of life, as at the eightieth† or ninetieth years‡. Desormeaux considers such returns as evidence of disease, and not of menstruation. Harles relates the case of a mother of five children, who continued to menstruate to the age of sixty-two years.

I have often been consulted by women of sixty and sixty-five, who supposed themselves injured by excessive menstruation, but the fluid coagulated, was blood, and issued from an ulceration of the uterus, or some other of the pelvic organs. Such cases are extremely common.

It is a physiological axiom that fecundity continues until menstruation ceases. A question occasionally arises in Courts of Equity—Can a woman be a mother in this climate after the age of sixty years? Such a case was discussed in the Court of Chancery in England, in 1834. A woman was delivered in Edinburgh in 1816, at the age of fifty-four years. (Edin. An. Reg.) Marra, an Italian, attended a woman, aged sixty, for dropsy, but found her pregnant. Haller describes two women: one was delivered at sixty-three, and the other at seventy. Such cases most probably occur in Northern nations, where menstruation commences late, and continues to a much later period of life than in warm climates. It is also remarked that women in cold countries have had thirty children (Olaus and Redbuck); and I have known a woman in London, who was the mother of twenty-seven, and another of thirty-three infants, some of which were twins and triplets; and one who had forty. It appears so early as the ninth year in Abyssinia, and ceases at the eighteenth, and hence polygamy is allowed the people (Bruce). It continues in general about thirty years in temperate climates, and during the most appropriate ages for the reproduction of the species. It ceases between the age of thirty and forty in many warm climates, and sometimes much earlier, as already mentioned.

When menstruation is about to cease, the period is called critical, "the change, or turn of life, the climacteric period;" and many important changes take place in the constitution at this epoch. All the characters of puberty and the peculiarities of women cease, the breasts collapse in most cases, the fulness of habit disappears, the skin shrivels, and appears too

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* Traite Compl. de l'Art des Accouch.
† Dupeyron, Acad. des Sciences, 1768.
‡ Lond. Med. and Surg. Journal, Vol. 6.

large, and loses its colour and softness, and many diseases develop in the womb, ovaries and breasts, which had lain dormant for years. The cheeks and neck wither, the eyes recede in their sockets, and the countenance often becomes yellow, leaden-coloured, or florid, and the women become corpulent, and lose all the peculiarities of their sex. When this period has, however, passed, women often enjoy better prospects of health and of long life than the other sex, and become remarkably corpulent. This period is also designated "the climacteric, the critical time, the critical age;" and often before its arrival the menstruation is irregular, may be absent for weeks or months, the abdomen becomes tumid, there is loss of appetite in the morning; and the woman considers herself pregnant, which is scarcely ever the case. According to the statistical reports of Finlayson, Moret, Châteauneuf, and Lachaise, no more women than men die between the fortieth and fiftieth years; while Dewees, D. Davies, and Desormeaux, contend, and Sagilo with them, that women are not more liable to diseases at this than at any other period of life.

The cessation of menstruation, however, is often preceded by gradual derangement of health; there is nervousness, with all its protean symptoms, or more serious diseases appear; so that moderate purgation is often of the greatest advantage.

The disorders most common at this period are hypochondriasis, nervous irritability, indigestion, derangement of the digestive organs, constipation, diarrhœa, intestinal and other hæmorrhages, spasms in different parts of the body, giddiness, apoplexy, and severe or transient pains in the back, loins, inferior extremities and different parts of the body. Chronic complaints are often aggravated, and organs predisposed to disease very often suffer. Disorganizations of the uterus, ovaries, mammæ, rectum, and bladder are very frequently developed. Daily observation in hospital, dispensary, and private practice confirms the correctness of this statement. The more general opinion, however, is, that most women are exempt from such diseases; but more correct evidence is wanted to confirm this conclusion.

The menstrual function rarely ceases without more or less disorder. In some cases the cessation is preceded by a gradual diminution, or an increase of quantity of the menstrual secretion, amounting to hæmorrhage. The evacuation may recur every three or six weeks, and there is often severe mucous leucorrhœa. In many women it ceases without any inconvenience whatever, and better health may be enjoyed than at any former period of womanhood. In others, especially those who lead a luxurious life, the "critical age" is, occasionally, an epoch of licentiousness and the passions. Pregnancy is often suspected by such persons, but it rarely exists. I have been consulted in several cases of this description, in some of which the women supposed themselves in labour, and I was even called to perform the Cæsarian operation in some of these cases. But all ended in thin air or fat—hope was entertained;—donec tandem spes omnis in flatum et pinguedinem fascesseret. I shall notice these cases hereafter, when describing the signs of pregnancy and of normal and abnormal parturition. The head often requires attention at cessation of menstruation, as sudden flushes of the face, vertigo, and drowsiness, are urgent symptoms. Cupping, or leeching the back of the head or nape of the neck, with purgation, pediluvia, &c., are the best remedies. It has been observed, that the health is more or less deranged for years before and after the cessation of the menses, and that enforcement of the regular evacuation of the bowels daily, is necessary.

The changes in the uterus and its appendages deserve notice.

The internal and external orifices of the uterus become obliterated, partially or totally (Duges); or the cervico-uterine orifice is similarly affected

(Mayer); the uterus and ovaries are atrophied or hypertrophied; the rugæ of the vagina and mucous membrane of the uterus are relaxed, and often pour out a copious mucous discharge; the vulva is flaccid and dilated; there is often prolapsus uteri, and the breasts decrease considerably, or speedily disappear.

Women often, however, mistake the effect for the cause. In chronic and fatal diseases of any organ, the powers of life are diminished, all the functions are impaired, and menstruation is deranged or suppressed. Pulmonary consumption affords a good illustration. Menstruation ceases towards the last stage of phthisis, and women suppose that the absence of the function is the cause of the disease. They request medicines to restore it; but these have no effect, as loss of vitality from destructive disease is the cause of the effect they are desirous to remove. It is scarcely necessary to observe, that no medicine can re-establish a function when life draws towards a close. It sometimes happens that eruptions, and other diseases, which disappeared at the age puberty, return on the cessation of menstruation, and are to be treated on ordinary principles.

Dr. Marshall Hall, in his Commentaries on Diseases of Females, strenuously recommends attention to the general health at the cessation of the catamenia, and enjoins the necessity of regulating the bowels, diet, air, exercise; and in cases in which vertigo or drowsiness appears, recommends the occasional abstraction of blood, by cupping, from the nape of the neck, or leeching, and purgation. He also considers that the health is affected several years before and after the climacteric period; but there are many exceptions.

It appears from the preceding sketch, that every process in the female economy is imperfect until the appearance of menstruation; it is the sign and establishment of health; without it beauty cannot exist, or will be speedily effaced; the order of vital actions will be altered; the mind become anguid, and the body depressed. During its presence women are weaker, more delicate, and more susceptible of impressions; all their organs partake, more or less, in the condition of the uterus. The whole train of nervous sympathy is thrown into action; the vascular and nervous systems, the digestive and respiratory organs, are liable to derangement of function at this time. Hence, the universal rule of medical practitioners—a practice consonant with the prejudices of women themselves—is to omit all active medicines during the healthful function of menstruation. All strong mental and corporeal exertions ought to be carefully avoided, as passions of the mind, travelling, riding in carriages or on horseback, long walks, dancing, and exposure to cold and moisture, every one of which causes may suppress the evacuation.

We find the most precise directions in the Sacred Writings as to every circumstance connected with this function; a separation was enjoined, and nuptial intercourse interdicted. The excellence and wisdom of the Levitical injunctions will be admitted by every scientific medical practitioner, when he recollects the injurious effects of sexual commerce under such circumstances, especially on the female; nor does he want evidence to convince him, that the male has contracted simple gonorrhœa from this cause. Excessive menstruation is often induced by the violation of this precept, and every well-informed physician is aware of the numerous disorders to which women are subject from excess of their peculiar function.

The hygienic precautions relating to menstruation are seldom, if ever, attended to in this country. The young female, at the age of puberty, is seldom instructed as to the change which is to occur in her peculiar organs; she is left ignorant, and is much astonished at the first eruption of the

uterine secretion. The mental emotion thus excited, often interrupts the proper establishment of the evacuation for one or two years. She is not cautioned to avoid, during each periodical evacuation, exposure to cold, humidity, all strong emotions, violent exertions, walking, riding, dancing, &c., exciting aliments and drinks, &c.

It is well known that the first appearance of the catamenia will depend upon the state of constitution, mode of life, habits, &c. of the individual, and in the opinion of many, upon the manners of those with whom young women converse. It is also to be remembered that women, in general, are weak during the periodical evacuation, and are averse to sexual congress: the most abandoned of the sex will not allow it, unless impelled by the direst distress or profligacy. It has also been generally observed, that women of full habit, those who live luxuriously, those confined in warm apartments, and those who indulge in nuptial commerce, menstruate most copiously. But we often find individuals of full habits have the secretion sparingly, while pale and delicate women have it copiously. It is much increased by marriage, and may be rendered excessive, or painful, for the remainder of its course; and in such cases sterility is the usual result, or some incurable disease of the womb or its appendages. There is no truth in the opinion, that the menstrual fluid nourishes the fœtus, and is suppressed for that purpose; but the correct explanation of the cause of its suppression is afforded by the physical changes which take place in the uterus after conception; and the established physiological axiom, that two functions cannot be properly performed by the same organ, at the same time.

Again, animals that are deprived of this secretion by nature, nourish their offspring in the womb.

When menstruation returns during lactation, conception very shortly follows: and the breast-milk is generally considered by women, and medical practitioners, to be deteriorated, and unfit for the nourishment of the infant.

It is very manifest from the preceding remarks, that every process of female economy to the climacteric age, is affected by the periodical secretion; and women very properly ascribe most of their diseases to the derangement of this important function.

OBSERVATIONS

ON THE CONNEXION BETWEEN

PHYSIOLOGY AND PATHOLOGY;

Illustrated by its application to the Phenomena of Disease and Death.

And Addressed to the President of the King and Queen's College of Physicians in Ireland, at an open meeting held the 18th of April, 1836.

By WILLIAM STOKER, M.D.

Honorary Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

"The numan mind is so prone to form opinions upon every subject which is presented to it, but from natural indolence is frequently averse to inquire into the circumstances which can alone form a sufficient ground for them; when, however, the mind shall be obliged to observe facts which cannot be reconciled with such opinions, it will be evident that such opinions are ill founded, and they will be laid aside."—*Morbid Anatomy, &c. &c.* By M. Baillie, M.D. F.R.S., &c. &c. London, 1812.

Mr. President—As all I have seen and read on the intimate connexion between physiology and pathology, and its application in the theory and practice of medicine, have tended further to confirm those observations made in the Sketch of Epidemic Fevers and Pestilential Diseases in Ireland, which I presented at the close of our last session and afterwards published, I am desirous to bring that subject again before my medical brethren, and thus to avail myself of their instruction. The additional aid afforded by Dr. Alison's recently published Supplement to the Outlines of Physiology and Pathology is another motive to solicit an opportunity for explaining the principles and practice I ventured to recommend in my last and pre

vious publications*. Feeling, however, very sensibly how much I need the kind indulgence of my hearers, I beg to premise that I was first necessarily led by my professional engagements into the hazardous and difficult position I hold; and believing that a portion of truth of great value in medical science, and therefore highly important, was then entrusted to me, I deemed it inexcusable from any personal apprehensions to abandon it. Moreover, as its assailants were generally enlisted from the opposed ranks of exclusive fluidism and exclusive solidism, I was better able to keep my station; for however dangerous their weapons might be to each other, they did not materially affect those occupying the debatable ground. And truth, which has prevailed almost every where else†, must be ultimately acknowledged here also, notwithstanding the opposition, as will subsequently appear, it has hitherto encountered‡.

Soon after I turned from my attendance in the lecture-room, and the mere study of books, to the bedside of the sick, it was with painful humiliation that I found in the wide and crowded scene of human suffering then presented to me, so very little acknowledgment of those theoretical systems which I had so ardently admired: nor was it long before I felt myself obliged to announce publicly that the systems and institutes of medicine then in vogue, based as they were, some on different, others on totally opposed principles, in most of the European colleges, appeared to me on that account to rest on insufficient foundations, and to be supported rather by the genius of their advocates, and the authority of great names, than either by their utility or their truth.

Though it must be admitted that the increase of positive knowledge since that time has given many valuable additions and repairs to those exclusive systems, even yet every experienced physician must admit that practice finds them frequently at fault, or directly contradicted by results. When first I ventured, at the close of the last, and beginning of the present century, to publish my objections to their exclusive principle, the announcement was received with as much dissatisfaction as the opinion of so humble a person can be supposed to have produced: for as I saw no ground for rejecting any system to the exclusion of the other, I have been accordingly assailed as an enemy to each. Increased experience has only more deeply convinced me of the deficiencies of these several systems, and induced me to urge them again and again upon the consideration of my medical brethren. My humble efforts soon attracted much favourable notice from many eminent writers in France, Germany, and America; and those considerations which I had so long ago and so often since suggested as necessary to a sound system of pathology, have been insisted upon in language which, though better, is not very dissimilar to mine, not only by some of the most able and popular of the medical text writers of Great Britain, but also in the present year by most of the London medical journals, as well in their editoral reports as in the proceedings of several medical Societies connected with the London University and other distinguished schools of medicine and surgery*.

My leading object, however, on the present occasion, being to avail myself of the irrefragable evidence I find in Dr. Alison's recent work on the Laws and Conditions of Vital Action, I hope to be permitted to make a few preliminary remarks in this place on the economy of the animal system, or, in other words, respecting the nature of animal life. By the term "animal life," I mean (wishing to avoid questions rather metaphysical than medical), to express the life of the body as contra-distinguished from the immortal soul; for although our limited faculties have as yet been, and probably will on earth ever continue to be, unable to discover the nature of either the one or the other; yet they are not only distinct but distinguishable from each other, as we may frequently witness the life of the body, after the intelligent and responsible soul appears to have withdrawn, and as frequently, on the other hand, the greater portion of the body dead, while the immortal spirit continues to abide alive.

Cases of simple or uncombined typhus must be familiar to every experienced physician, when sensorial power is suspended during many hours, or even days of violent agitation, perhaps of convulsion of the vital and natural functions; yet which is sometimes restored shortly before death in a wonderful manner. In the malignant cholera, on the other hand, that combination, I believe, of epidemic typhus with cholera, which is known to all acquainted with that dreadful epidemic, there is generally complete integrity of sensorial power during almost the total annihilation of the vital, natural, and sometimes even of many of the animal functions, as distinguished by Bichat and others. But attempts to localize cholera have been as vain, and I think more detrimental to medical theory, than even those to ascertain the essential nature of animal life. Thus, one class proposing to

* Supplement to Outlines of Physiology and Pathology by W. P. Alison, M.D., &c. &c. London, 1836.

† London Med. and Surg. Journal, pp. 779—782, 202, &c. &c. (March, 1836.)

‡ Notices of Communications to the British Association for the Advancement of Science at Dublin, in August, 1835.

* See Lond. Med. and Surg. Journ., Nos. 25 and 26, Jan. 16th and 23rd, 1836.

confine the vital principle wholly to the solid machinery of the body, gave rise to that system called solidism, and was long maintained by the ingenuity of Hoffman, Baglivi, Cullen, and their numerous disciples. Another limited it as exclusively to the blood, and hence originated the system called fluidism, which was maintained not, however, with the same zeal; for, though the great discovery of the circulation by Harvey in the 17th century, directed pathologists to the circulating mass and sanguiferous system, still the eclectic school of Boerhaave was founded on it, and continued until the anatomical sect at the Windmill Street School, by the illustrious Hunters, and their pupils, attempted to found pathology almost wholly on post-mortem observations. So that by each sect the phenomena of disease were referred to the morbid actions of different parts: and of course their respective systems of practice differed as much as their ideas of the causes which they respectively advocated. The mischief, however, would have been much greater, had not exclusive humoralits, as well as exclusive solidists, been often obliged to give up their theory to cure their patients; and tacitly to exchange their boasted dogmatism for the empiricism they openly impugned.

By the application of those first principles, derived from the study of the functions in general, and the laws of the vital system, the *errors* of those exclusive systems have become more apparent, and the modes of restoring them, or at least of extending their utility, have thus also been more clearly pointed out. Dr. Alison's Outlines of Physiology and Pathology, published in 1833. appearing to me to be highly valuable in this way, I directed the attention of those attending my lectures on the practice of physic, to the illustrations afforded by the nosology I recommended for their adoption. The following passages will assist to explain the objects of some others. In the supplement published at the commencement of this year, we find the following judicious opinions.

"It is not presuming too much," Dr. Alison observes in his preface, pages viii, ix, "on the accuracy of the information which we now possess on these subjects, to assert that two errors have been very prevalent in general or systematic medical works, since the time that medicine has been separated from other sciences, and cultivated on sound principles. First, the 'moving powers of animal economy,' and especlally the province of the nervous system in producing the phenomena of life, which were long neglected in certain schools of medicine, have been erroneously conceived by others—by Stahl, by Hoffman, by Cullen, and Whytt, and to a certain degree by Bichat, by Legallois, and even by Dr. Wilson Philip; and were more accurately understood by Haller than by any of those authors." Secondly, "Besides the misconceptions which seem to have prevailed, and still continue to prevail amongst many physiologists, as to the essential condition of vital movements, and particularly as to the influence of the nervous system in determining these movements and their immediate effects, it seems now pretty generally admitted that the influence of the truly vital properties of the blood, and other animal fluids, on many of the most important changes of the living body, in health and disease, has, until lately, been very much overlooked. When these vital properties of the fluids are better ascertained, and their importance duly appreciated, there is every reason to believe that the distinction, so often drawn in the schools of medicine, between solidists and fluidists, will be effectually obliterated by the admission that most diseases originate in that part of the system (the capillary vessels) when the animal solids and fluids are most intimately blended together, and are continually interchanging particles; and, therefore, necessarily extend to both."

The increase of positive knowledge announced in the Outlines of Pathology, in the preceding extract, affords much aid in solving many of the most important questions which naturally suggest themselves to pathologists: but I shall confine myself to the following—What is disease, which often oppresses us through life, and at last brings death in its gloomy train? We feel the langour or the pain, and when the grim tyrant has prevailed, and the spirit has returned to Him who gave it, anatomic skill can accurately shew the ravages in the forsaken fabric, and sometimes the morbid changes left in the fluids. To learn so much is no trifling advantage, and one for which medicine must ever be deeply indebted to *post-mortem* anatomy; but still, to look upon the destruction thus exposed, can only make us feel a more intense interest in the inquiry, How was this destruction effected, or how it commenced and progressed? I do not deny that *post-mortem* anatomy, and its brightest pendent, stethoscopy, can demonstrate the progress of disease in one portion of the system; it can shew the incipient tubercle as well as the noisome cavity which it afterwards becomes. But the cavity was not more a consequence of the tubercle, than the tubercle is itself a consequence of the disease, which must have existed before the tubercle was discoverable; and we have still to inquire after the cause which first produced the little spot, and then widened it into the fearful track of death. Such a gradation of disease, in its transition from the fluids to the solids, might be illustrated by numerous preparations in every anatomical museum; some of them I have had the satisfaction of placing in the

Museum of the College of Surgeons, and cases and dissections, both of human subjects and of horses, which I detailed with the same view, may be found in the 67th to the 104th page of my "Pathological Observations," and in the 243rd and following pages, "Cases of organic disease, namely, enlargements of the heart, hepatization of the lungs, and hydatid tumours, which were traced from morbid changes in the globules of the blood through the buffy coat, or that drawn in the course of disease, and found effused after death, until, ceasing to have the distinguishing properties of a fluid, it concreted into the several forms of organic disease."

I therefore say, without the least doubt of the truth, but with diffidence and unfeigned respect for the distinguished men whom the exclusive pathology of the solids has ranked among its approvers in modern times, that solidism, as an exclusive system, owes its existence to insufficient distinction between cause and effect; or, as causes, so far as we know them, are but events uniformly followed by the same sequences, and as each sequence in its turn becomes the cause of another sequence, I shall express myself more correctly by saying, that exclusive solidism owes its existence to the difficulty of tracing out the whole concatenation, and to the mistake so fatal to sound pathology, since the close of the last, and commencement of the present century, of assuming as the first event, one which, though connected in the chain, is separated from the first by many links. Nor do I doubt that it has received much support from the still greater error of regarding an event as one of a series to which it was only incidental, or, as frequently happens, with which it had no relation whatever. The distinctness with which anatomy, which must be regarded as the patron of modern solidism, can trace back the progress of disease in the solids, sometimes to a point, seems to have induced the inquirer, in his zeal, first to take it for granted that this was the salient point of the disease, and next to confound that with the disease itself, and then with the cause of the disease; and, finally, as the solids only would admit of this species of investigation, to suppose that in the solids vital power exclusively abides, and disease is universally generated.

That disease may be generated in the solids has, I believe, never been denied, but what I contend for is, that morbid alterations are not confined wholly to them, but arise in the blood, whether from the introduction of extraneous fluids, or such as are not assimilated to it; also by interruption of the functions of sanguification in the liver and lungs, whether by vegetable, mineral, or atmospheric miasms or other poisons, and hence that the salient point of actual disease is most frequently in the fluids. Conversant, however, as anatomy is with the effects only, and comparatively ignorant as we were, until late discoveries by the microscope, of the laws and conditions of vital actions in the fluids, it was impossible to lay down any rule with certainty, or to do more than assist reason by observation and experience. Than that the blood, drawn in the different stages of disease, however, exhibits appearances totally different from that in health, there is, I think, nothing more certain; that it may be affected, also, in different species of disease in very different degrees, I have often demonstrated to my pupils, when shewing them cases of symptomatic and idiopathic fever, and recommended these observations as the basis of sound pathology, and pointed out to them how much those various apearances of the blood might assist not only as a diagnosis between such fevers, the blood being loosely coagulated and broken into fragments in the former, and firmly coagulated in the latter type; but that the differences between the latter appearances of the blood, might also assist in distinguishing between the various functions and organs affected in different cavities engaged. These facts always appeared to me to be too striking and indisputable to be properly overlooked, and necessarily suggested inferences of vast importance to the practical physician, when considering either the *ratio symptomatum* of disease, or the *modus agendi* of this cause.

To neither of the hostile or contradictory systems of exclusive solidism, or exclusive humoralism, as respectively promulgated by the schools of London, Edinburgh, and Montpelier, and their rival contemporaries in Germany, do I belong. As exclusive systems, I believe them to be extremes, and equally distant from sound principle. In a course of observations on the rise and growth of epidemic and pestilential disease, longer than falls to the lot of most men, I have over and over again tried their respective efficacy, for ascertaining either the *ratio symptomatum*, or *methodus medendi*, and have found them fail. In remarking on the differences of these rival systems, however, I am bound to add, that whilst each has its peculiar advantages and effects, that of solidism is most defective at the commencement of them, when, if it could afford aid, it is most required. In support of this opinion the history of diseases in general affords numerous arguments. In dynamic or inflammatory dropsy, with coagulable urine, and disorganized liver, the buffy coat on the blood drawn in the course of disease, which I have generally found to precede such antipenult changes in the system, I have also found most useful in guiding the prognosis, and the application of remedies. In diabetes, also, in which the urine is saccharine; and there is generally disorganization of one or other

kidney, I have generally found the white sizey surface on the blood drawn indicative of imperfect chylification, likewise to be the earliest indication of disease, and surest guide to a remedy for it. In hypertrophy of the heart, hydatids, and several other organic diseases already adverted to, the detection of the early changes in the condition of the blood appear to me to be of the utmost importance in guiding the treatment of these diseases; but I have already referred to the cases I reported in my Pathological Observations, to illustrate that opinion.

"Principiis obsta sero medicina paratur,
Cum mala per longas convaluere moras."

With respect to modern solidism, I have, in stating my objections to it, to add, that the very chairs in which it was first inculcated, its authority as an exclusive system is altogether denied.

Indeed, the more I have seen of disease, and have considered the various indefinable causes of vital as well as morbid action, and the exquisitely minute structure, and the delicate symphaties of the human body, the greater has been my difficulty of discovering the propriety of limiting the means by which that body may become diseased, or of asserting positively that the salient point of disease was here and nowhere else.

These views, the result of all my experience, as may be seen in my successive publications on pathology, since the period of my experiments made early in this century, to ascertain the changes effected on the venous blood, by the function of the liver, in its passage from the *vena portæ* to the *vena cava ascendens*, having been constantly opposed by the approvers of exclusive solidism, it was with no little satisfaction that I read the decided evidence in their favour, which is to be found in Dr. Alison's recently published Supplement, which consists chiefly of exceptions taken to exclusive solidism, on account of late discoveries of the laws and conditions of vital action in general; and I fully acknowledge this, more especially as he recognises those experiments already adverted to, which I contemplated whilst a student in Edinburgh, and soon after, with the aid of Dr. Abraham Collis, instituted; which, though rude as they were, and imperfect, from the deficiency of the microscopes we employed, yet detected considerable changes in the colour and consistence of the blood during its passage through the liver, and which were clearly visible to the naked eye. Besides, the importance of these results were soon afterwards greatly enhanced by the experiments of Drs. Dumas and Prevost, of Geneva; and within the last two years by those of the late Mr. Thackrah, which indicated distinct external characters of the blood in different parts of the sanguiferous system. These experiments were published since his death, by Dr. Wright, of London.

A very brief examination of the first, second, sixth, and seventh sections of Dr. Alison's Supplement on the laws and conditions of vital actions in general, and on the composition, structure, coagulation, and vital properties of the blood, would be sufficient to shew how fully that useful work has illustrated my pathological observations. The following passages, however, must suffice for reference. "Some of the facts," continues the preface, "lately recorded, when taken in connexion with previous observations, seem of such importance as to correct inferences which had been generally drawn from facts formerly known, and to extend and modify the first principles of a science which I continue to think is most properly taught synthetically, i. e., by laying down first principles in the outset, notwithstanding that some of those principles can be as yet expressed in very general terms." Again, describing the two strictly vital powers indicated in all the vital actions engaged in nutrition and secretion, it is stated, 1st, "Vital affinity, by which the elements of the nutritious matter must be thrown into the peculiar combinations necessary for forming organic compounds; and, 2ndly, some moving power peculiar to life, in all probability of the nature of attraction and repulsion, by which the particles of that matter must be moved in the directions necessary for these combinations."

I should very willingly proceed further with those illustrations of my objections to the exclusive nature of the pathological systems of fluidism and solidism, and to those first principles which may be regarded as postulates of that system to which they respectively belong; but, fearing that I may have already encroached on the time which can be afforded to me this evening, I shall postpone them at present, as well as some explanation of the phenomena of disease and death. I shall resume them at our next open meeting; and on that occasion too, I purpose to submit the outline of a nosology, founded as well on morbid changes in the solids, as on those morbid actions discoverable by the improved microscope "in the capillary vessels, where the animal solids and animal fluids, are most intimately blended together, and are continually interchanging particles; and, therefore, necessarily extend to both." And thus, I hope to afford some aid in removing those distinctions I believe to be still most injuriously drawn in the schools of medicine between solidists and fluidists. From the close analogy between the laws and condition of vital actions in generation, and those of sanguification, as successively announced by Harvey, Hunter, and Thomson I am led to hope that by the continued

application of the microscope, improved as it now is, the commencement of diseases from alterations in the globules of the blood shall be detected; and, also, that the appearances of the buffy coat on blood drawn in the course of disease, depend on rupture of these globules, may be discovered, so that tubercles of the lungs, hypertrophy of the heart, or hydatids in any of the cavities, might still be remediable; or at least before these various diseases have advanced so far as to be clearly indicated by the stethoscope, and their incurable condition, as mostly happens, be thus announced. In pressing such considerations I should be much misunderstood if it was supposed I intended to disparage the stethoscope, or those who enjoy well earned fame, from the cultivation of its advantages in the theory and practice of physic; and, with respect to the rival systems of humoralism and solidism, I beg to observe finally, that it is only as exclusive systems, that I refuse to them either my assent or admiration. Their champions have been drawn from the highest spheres of intellect, and have in their turn greatly advanced the cause of knowledge and humanity; but, great as their efforts have undoubtedly been, I believe their services to mankind would have been much greater, if they had given to union one half the genius they spent in controversy; and, instead of degrading knowledge by the virulence of faction, had cordially united two systems, which may be regarded as the twin-daughters of science, to each of whom their parents have given half the truth as an inheritance, with the intention of rendering them inseparable.

Reviews.

An Authentic Report of an Introductory Lecture on the important subject of Medical Reform; delivered in the School of Anatomy, Medicine, and Surgery, Peter-street, on Friday, 30th October. By Andrew Ellis, Esq., M. R. C. S. D., Lecturer on Surgery, in the Medical School, Peter-street; Surgeon to the Charitable Infirmary, &c. 8vo. pp. 63. Dublin. Fannin and Co. 1836.

THE author of this production is one of the most popular lecturers in Dublin, and one of the few advocates of medical reform in that city. He gives a comprehensive and concise history of the anomalous and corrupt state of the medical profession in the United Kingdom, and contrasts it with that of other countries. He commences, as might be expected, with strictures on the Dublin Schools, and then equally censures all the rest in Great Britain. We entirely agree with him in his remarks, which our constant readers will find are our own. It appears to us that Mr. Ellis is too sanguine in his expectations of immediate and efficient reform; as we have reason to know that little good will be done this Session of Parliament, or, perhaps, during the next. But we must introduce our author to our readers, and advise their attentive perusal of the following sketch of the Dublin Medical School.

"By a retrospective view we may at once perceive, that in no department of society is the march of improvement so advantageously displayed, as in The Medico-Chirurgical School of Dublin. About thirty years ago there were only two schools of medicine and surgery in this city, and they were but poorly attended by students; I allude to those connected with Trinity College, and the College of Surgeons. At this period clinical instruction was scarcely thought of. In 1810, my former colleague, Mr. Kirby, established the Peter Street School, and by so doing incurred the disapprobation of some envious persons, who seemed to think that they had a right to a monopoly in teaching. Mr. Kirby had, at first, much difficulties to contend with; but by his talent and perseverance, he ultimately triumphed over his jealous opponents. Encouraged by the success which attended his exertions in Peter Street, for the long period of fourteen years, some medical gentlemen deemed it a safe speculation to found other schools upon the same principle. Accordingly the one in Park Street was brought into existence in 1824; and, in a few years afterwards, the Richmond School was established. In 1832, the enemies of this institution concocted a new plan, by which they imagined they could, by one clever stroke, demolish for ever not only the existence, but the very name, of a Peter Street School. It would be indelicate in me, to occupy your time in describing the unworthy means resorted to, on that occasion, by a miscalculating party; or to detail the manner in which their designs were counteracted, their machinations frustrated, and their signal defeat accomplished. The success which attended the efforts of those interested in the preservation of this establishment, was such as to give a fresh impetus to teaching in Dublin; and the consequence was, that, in the succeeding year, the Digges Street and the Mark Street Schools were founded. We have now seven schools in this city, in which the various branches of science, which relate to medical education, are regularly taught. We have, likewise, seven hospitals, in which clinical instruction, both in medicine and surger

given; besides a great number of lying-in hospitals and dispensaries. The great majority of these various institutions are well attended by pupils, and their conductors are vying with each other in communicating information to their respective classes.

"Thus, gentlemen, you may perceive, from what I have stated, that the medical profession in Ireland, and I may likewise include England and Scotland, has advanced considerably within the last thirty years. I am disposed to attribute this advancement, in part to the growing intelligence, and the spirit of scientific improvement, which characterises the present times; but, more especially, to the vast number of persons now engaged in its pursuit, and being unable to obtain, by practice, a respectable support for themselves and families. have devoted their energies to teaching. I feel, that, as far as a desire for knowledge and the stimulus of necessity are capable of improving our profession, either as regards science or the public good, we have little to expect beyond what has been already accomplished; until a host of musty and absurd charters, and incongruous acts of parliament, shall be superseded by a sweeping bill of MEDICAL REFORM! Gentlemen, I perceive that I have touched a chord that vibrates in unison with your feelings; that I have sounded a note which strikes euphoniously on your ears. It may appear to you somewhat strange, that this is the only school in Dublin, in which the important subject of medical reform has been introduced; or any attempt made to give to the Irish students an idea of the present position of a question which must necessarily excite in their minds feelings of the deepest interest and anxiety. Be not deceived, and suppose that the omission has been accidental; or that it was the result of a feeling in the minds of the lecturers who have preceded me, that the topic was too insignificant to merit their attention. I am persuaded that the real cause was an indisposition on the part of those, who either at present enjoy, or hope to partake, at some future period, of the sweets of corporate patronage and monopoly, to embroil themselves in the discussion of a subject which must naturally lead to contemplations and forebodings, of a most disastrous, and melancholy nature. As I have no gloomy anticipations of this kind to contend with, I hope I will be able to give you some general idea of the enormous inconsistencies, and the multitudinous abuses, which pervade all departments of the medical profession in Great Britain and Ireland; as well as some notion of the present prospect of their speedy abolition. Previously to entering upon this complicated, but very interesting topic, I must bespeak your indulgence, for the numerous defects and omissions which must necessarily attach to a discussion of such limited duration as that which the usage of the lecture-room will constrain me to observe."

Our readers will perceive, from this extract, that Mr. Ellis is an avowed and sincere opponent to medical corporations, and a true friend to science. If farther evidence were required in support of this opinion, the succeeding remarks afford it most amply.

"In order to render myself intelligible to the junior part of my auditors, I beg to remind them, that the profession, in these countries, consists of three divisions or branches, viz. physic, surgery, and pharmacy. We have, accordingly, Universities and Colleges of Physicians, Colleges of Surgeons, and Apothecaries' Halls. These bodies are incorporated by their respective charters, and possess a power of making bye-laws for their own government, and of prescribing such courses of education as they may deem proper, for the observance of those persons who wish to graduate in, or become members of, their corporations. With a view to make the present system of medical economy as effective even as *it* might be, I maintain, that the different sections in England, Ireland and Scotland, should, in accordance with the idea we have of an united kingdom, be assimilated, and placed in every respect on the same footing; and that there should be no such thing as a monopoly of teaching, tolerated in any of them. However, the reverse of my position is the fact; for, very few of those corporations possess anything in common, which relates either to the advancement of science, or the public welfare. On the contrary, for the most part, they differ in their curricula, or courses of education; in their mode of examination; and, in the privileges conferred by the possession of the degrees or diplomas granted by the same section of the profession, but, in different parts of the united kingdom. In order to prove the truth of my assertion, I will now proceed to remark upon the numerous discrepancies which exist amongst the medical corporations of Great Britain and Ireland.

"I will commence with the universities by calling your attention to the difference which prevails amongst them, as regards the course of education prescribed for the observance of medical students. Time will not admit of my going into a detail of the various items of study laid down by them; I will, therefore, select for argument, the one which, of all others, appears to me to be of paramount importance; I mean that of attendance on hospital practice. I have already told you, that it is only by a strict and vigilant attention, in the chambers, and at the bed-side of the sick, that a student can possibly become acquainted with the impor-

ant, but mysterious phenomena of disease, and thereby acquire that species of information, by which alone he can qualify himself, either to cure, or alleviate human suffering.

"By a perusal of the rules and regulations which have been issued by the Dublin and Edinburgh universities, for many years, it may be seen that they required, till very lately, but a six-months' certificate for attendance on hospital practice, from candidates for the degree of M. D., whilst those of Glasgow and St. Andrew's demanded twelve months; and nothing short of three years, would satisfy the fastidious law-makers at Aberdeen! Does not this circumstance in itself amount to a satisfactory proof, that some of these institutions must be wrong in their mode of acting in this respect; and that there is an obvious necessity for the interposition of legislative interference, with a view to strike a proper average, which ought to be common to them all. If we look to the same source for information, we may learn that there has been a similar want of uniformity, in the mode of granting medical degrees in these universities. For instance, it is not long since the preceding examinations were conducted in Latin, both in Dublin and Edinburgh; whilst in Glasgow, the examiners condescended to speak plain English; and in St. Andrew's, they were liberal enough to grant degrees in medicine without submitting the candidates to the vulgar and humiliating test of any examination whatever!—Gentlemen, I am not much surprised by your laugh of incredulity, at the announcement of this extraordinary and almost incredible fact; but, believe me, when I assure you, that my statement is perfectly true. A few years since, any gentleman who felt anxious to obtain the degree of M. D. from St. Andrew's, might, without much trouble, gratify his ambition, by directing a letter to the registrar of the university, expressive of his desire; and, provided it contained certain enclosures, he would be honoured, in the course of a few days, by the receipt of a degree, bearing the sign manual of the Senatus Academicus! This mode of proceeding, though ludicrous it may appear, was in constant operation for a great number of years; and it was not until the possession of such documents was looked upon, by the public, as a proof of ignorance, rather than the just reward of *tried* merit, that their sale fell off, and that it was deemed expedient to alter the system. Accordingly, the managers of the medical department of the university, framed new rules and regulations, I believe in 1826; and, in order to convince the world of the sincerity of their repentance, for past misconduct, they commenced by adopting the following solemn and austere resolution:—'That no degree shall be conferred on an absent candidate.' I do not think the former proceedings of St. Andrew's much worse than the absurd practice, adopted elsewhere, of conducting examinations in a language, which, when taken in a conversational sense, may be considered dead in the medical profession. What can be more ludicrous to human conception, than to imagine two persons discussing in a language, with which, in all probability, they are but imperfectly acquainted, some abstruse point of science, of which they, perhaps, know less? Yet, we find that very classical, and aristocratic body, 'The Royal College of Physicians in London,' still adhering, with a superstitious fidelity, to the old, but now nearly deserted path of folly, which has been too long trodden by medical corporations, under the mistaken notion, that it imparted learning and dignity to its blind followers!

"Gentlemen, my next position is, that any person, who has fairly obtained, either a degree in medicine, or a diploma in surgery, or pharmacy, from any of the medical corporations in the United Kingdom, should be at liberty to practise his profession without restraint or annoyance, in any, and every part, of England, Ireland, and Scotland. Such, however, is not the case; for, 'The Royal College of Physicians in London' are empowered, by their charter, to punish by law, all physicians who would dare to prescribe for a patient, either in London or within seven miles of it, without having first submitted themselves to the humiliating ordeal of going through *their* classical examination, and paying enormous sums of money, in the name of fees for the honour of being enrolled as a fellow, licentiate, or extra-licentiate, of this extraordinary corporation. Although this statement may appear incredible, its truth is unquestionable, and beyond contradiction: the college have actually taken advantage of their power, and prosecuted to conviction, some persons, who had the temerity to infringe on the precincts of their legalized monopoly. Is this liberty, and equality, towards all his majesty's subjects? Are the Irish and Scotch graduates in medicine, to be treated worse than quacks, if they presume to approach the English metropolis? The effect of such a state of medical legislation is, that nearly two millions of people, who reside within the limits of the prescribed district, are compelled to employ, or make their selections, from the very limited number of two hundred physicians! Gentlemen, I am happy to tell you, we have no such illiberal, or exclusive laws in this country, as far as regards the practice of medicine. No, the English, the Scotch, the French, the American, and the German physicians, may come here, and practise their profession, if called on, without the slightest molestation. It is true, that, 'The King

and Queen's College of Physicians in Dublin,' bear some resemblance in aristocratic pretensions, to 'The Royal College of Physicians in London;' but, the former is, comparatively speaking, a harmless corporation; indeed, many of its fellows, and licentiates, are gentlemen of high professional attainments, and liberal principles; who, even if they possessed arbitrary power, would not, in my opinion, wield it, to the injury either of their professional brethren, or the public welfare."

Every one who heard the medical evidence given before Mr. Warburton's Committee, and most of our readers, will at once admit the correctness of the preceding remarks. There is no one endowed with reason who will defend for a moment the differences in the curricula of the different British Universities, and the brutal inhumanity of transmitting degrees by the post-office. A Scotch University supplied Solomon, and a hundred other asignorant quacks, with their degree. Thanks to Mr. Hume, this griping, disgraceful system of acquiring money, is at an end; and the delinquents have now the modesty to require a much fuller course of education than the more respectable Universities. The strictures on examinations in a dead language are exceedingly just, and on the evil deeds of that once pompous institution which, after centuries of misrule and illegal tyranny, is compelled to rank with the Company of Rhabarbarians.

But we are very much surprised at the left-handed compliment issuing from such a man as Mr. Ellis, to the powerless and bigotted College of Physicans of Dublin. As to the notion that if they possessed arbitrary power, they are too high-minded to exert it, we consider it most absurd. Experience has shown that this body have no power to annoy any one, and the evidence of the officers, before the Committee already alluded to, proved them to be as exclusive and as corrupt as their transformed brethren at Pall Mall.

We have next to introduce our author's observations on Medical Schools connected with Universities and the College of Surgeons; and these are extremely just and forcible.

"Gentlemen, I now beg your attention to a few observations, relative to the medical schools which are usually connected with universities. In approaching this topic, I am quite aware that my motives may be impugned. and that I am liable to the imputation of acting from envious feelings in any remarks which I may think it necessary to make on this subject. However, I have made up my mind to stand by what I conceive to be the faithful discharge of the duty I have undertaken to perform; and not to be scared from my purpose by the apprehension of future consequences, but to place fairly, and I trust, impartially, before you such facts as appear to me deserving of the attentive and serious consideration of the medical students of the present important epoch in the annals of their intended profession. When those university schools were first established they were much wanted, and of great utility; for, at that time, the opportunities of acquiring professional information were exceedingly limited. But, when we reflect upon the numerous schools which have of late years been founded upon independent principles, and have already acquired, for excellence, an enviable celebrity, we naturally ask, what further necessity is there for the continuance of those corporate institutions which have already fulfilled the intention of their founders? Having been originally based on a foundation which nothing but the circumstances of the time of their birth could justify, the days of their usefulness have passed away, and the sooner they are abolished the better; for, constituted and supported as they are, they can no longer be deemed conducive either to the advancement of science or the public welfare! In order that we may thoroughly understand the medical department of the universities, let us first inquire how the professors are usually appointed? Generally speaking, by an irresponsible *non*-medical board. Yes, gentlemen, this is a positive fact. Is it not much more probable that the decision of such a tribunal would be determined by the private interests rather than by the scientific attainments of the candidates? How can such a board of electors form a just estimate of the qualifications of the respective candidates to discharge the duties of professors or lecturers on subjects of which they, the electors, know little or nothing? What would be thought of a school of divinity, if the professors were appointed by a medical board of electors? What opinion would you entertain of a military school, if the nomination of its professors rested with a board of ecclesiastics? By thus examining with the ordinary tests of analogy and common sense, the manner in which medical professors in universities are usually appointed, the defects of the present system become obvious to a person of the plainest understanding. The natural consequence is, that many of the professorial chairs are occupied b

inefficient teachers; yet they *must* be well attended and well paid; for, as a general rule, the universities in the different parts of the United Kingdom are so clanish in their mode of acting, that they oblige all students who wish to graduate in medicine to take out admission tickets and certificates from their own professors. Now, is it not a great hardship that my apprentice, who has an opportunity of learning anatomy and physiology in this school, free of expense, must, because he is desirous to take out a medical as well as a surgical degree, pay four guineas to Dr. M'Cartney, merely for the privilege of being incarcerated for six months in the anatomical lecture-room in Trinity College? Well, this is not all, for the university professors are not only the instructors of medical students, but likewise the examiners, and the persons who grant degrees to their own pupils! What can be said in favour of a system, of which this very objectionable procedure constitutes a prominent part? Do you think it accords with our idea of the kindly feeling of human nature, to suppose that teachers could bring themselves, in the capacity of examiners, to act impartially by voting against their own pupils, and in this way injure their future prospects in life? The thing is next to impossible; the more especially as the examiners themselves must know very well that *their* pupils had not a fair opportunity of acquiring professional information.

"Gentlemen, I now beg your attention to a few remarks on the want of uniformity which prevails in the regulations of the Dublin, London, and Edinburgh Colleges of Surgeons, as regards the item of hospital attendance. The Dublin College requires three years, the Edinburgh one and a half, whilst the London is satisfied with one. I feel a pride in stating that, in my opinion, the bye-law of the Irish College, in this respect, is the least objectionable. Give me leave to add, that there are other points, such as the comparative strictness of the examination of candidates for letters testimonial, and the non-payment of officers, which might in justice be advanced as an argument in favour of its superiority, as a corporation, over the English and Scotch Colleges. But, nevertheless, I regret exceedingly that I cannot claim for the Irish College, of which I am an humble member, that degree of perfection and public approbation which I fondly wish it was entitled to enjoy. We have fallen into the deplorable error of the universities, in having a school attached to it, and to this unfortunate connexion may be fairly attributed whatever dissensions have arisen amongst us. It would ill become me to speak disparagingly either of that school or its conductors; but, at the same time, I feel that it would be a culpable affectation of delicacy, on my part, if I did not openly express here, as I have done elsewhere, my objection to the principle of discord and monopoly involved in the fact of a school constituting a part either of a medical or surgical corporation. It might be urged, as an argument in favour of the continuance of this school, that the professors must necessarily be efficient teachers, inasmuch as they are appointed by members of the body, who are, it is to be presumed, competent to form a correct judgment of the qualifications of the candidates. Here I feel, that in order to render this question intelligible, it is necessary to apprise you that the members of the Dublin College of Surgeons are, in common with those of most corporations, divided into two parties, which earnestly support their own respective sides on all important questions of college politics. Such being the case, the annual election of officers is determined by the numerical strength of the predominant party. Accordingly, the court of censors, consisting of six members and the president, with whom the election of professors rests, must be looked upon in the light of being a fortunate or favoured few, who owe their official rank to the support of certain individuals. This is a kindness not easily forgotten by the censors, who are in gratitude bound to return the compliment, as far as the extensibility of the consciences of corporate officers will permit, by appointing to the professorial chair, as soon as an opportunity shall offer, the candidate who may have the good fortune to be a favourite with a certain party. Furthermore, I beg to add, that four of the censors, together with the president, or, in his absence, the vice-president, constitute 'a court,' and the *majority* of such a court have the power of nominating the professor. With this explanation, gentlemen, I will now leave you to form your own opinion as to whether the mode of election is such as to justify the inference that is but too often and too inconsiderately drawn as to the superiority of the lecturers in the school of the college over those connected with other schools, which are supported on public principles, but from private sources. I admit that it might be urged, with some degree of plausibility, in reply to me, by teachers in corporate schools, that 'the fact of our being appointed professors by any board of electors, is some guarantee, both to students and the public, of our competency to discharge the duties allotted to us; but you are a self-constituted lecturer, and ought, therefore, to be watched with an eye of suspicion, or discountenanced altogether." It is quite true that a man may either mistake or overrate his own capability, and in this way be induced to place himself in a position for which he was not at all suited. Well, be it so; such an adventurer cannot injure any person but himself: in the spe-

culation, he must embark his money, his professional character, his industry, and all the energies of his mind, in order that he may have even a chance of success. Should his capability, as a teacher, fall short of his own calculation, his lecture-room will be avoided, and he must lose every thing; yet, he has imposed upon no one; he alone has become the dupe of his own folly, and the victim of his temerity. Had this speculator the good luck to be elected professor to a corporate school, how different would be the result. The outfit would cost him nothing, the title of 'college professor' would, for a time at least, be considered, by some, a sufficient guarantee for his capability as a lecturer. The excellence of his theatre and museum, which were provided at the public expense, would present an imposing appearance, at the commencement of the session, which would naturally beget a desire in the minds of the inexperienced and unwary students, to take out the gaudy admission-tickets, which are headed with the seductive impress of the Royal Arms. Gentlemen, you may infer from this simple statement, that, whilst lecturers in corporate schools, no matter how incompetent they may be, are protected from a sudden fall by the buttresses of patronage and monopoly; those otherwise circumstanced, are obliged to rely on their own exertions, and place their confidence for support on the somewhat instable basis of public opinion.

"Such professors of the college school as are members of the corporation, are eligible to be elected on the court of censors; and, consequently, they may have, not only a voice in the election of each other, but, likewise, the power of examining, and voting for, or against candidates for 'Letters Testimonial.' The professors, and their friends, have studiously availed themselves of their privileges in this respect; accordingly, I believe, there has not been a single year, for the last twenty or upwards, in which one, two, or more, of the professors, were not members of the court of examiners! This, I consider a very unfortunate circumstance, as regards the reputation of the college. Only think of men electing themselves*, and their colleagues, and examining and granting diplomas to their own pupils! A Court of Censors should be, in my opinion, above suspicion; they never can, so long as they are permitted to examine, either their own pupils, or those of rival teachers. A monopoly in teaching, examining, and granting diplomas, or degrees, should not be allowed to any class of persons. For my own part, I am opposed to the principle of having teachers from *any* school on the court of examiners. I am not singular in this opinion, for the Association of Apothecaries in London, have made a rule, some years back, to the effect, that no person shall be eligible to become a member of their court of censors, who has any connexion with a school. The council of the London College of Surgeons seems to be of a similar way of thinking, for, some time ago, when the principals of the London University sought for a charter, to enable them to examine candidates, and grant degrees in Medicine, &c. &c., the council of the college sent forward a petition to the king, in opposition to the views of those gentlemen, in which the following remarkable passage is to be found.

"'Your petitioners are firmly convinced, that the occupation of teaching, and the power of examining, and conferring degrees, ought to be exercised, as they now are, by distinct institutions; and, that the union, in one and the same institution, of these discordant attributes, must be attended with danger to the public welfare, on the numerous occasions in which the interest of the teacher, and the duty of the examiner, would interfere with each other.'"

Many are not aware that no surgeon but a member of the Dublin College can be appointed to a County Hospital in Ireland (salary from 200*l.* to 500*l.* a year, or, in fact, to any lucrative appointment, if opposed by a member of the Dublin College of jobs. Hear Mr. Ellis.

"I now beg to express my dissent to that extraordinary, anomalous, and unjust law, which disqualifies, or, I should rather say, renders ineligible, any person but a Member, or Licentiate, of the Dublin College, to be elected to, or hold the situation of surgeon to a county infirmary in Ireland! Only think of such distinguished men as Guthrie, Lawrence, Liston, and Dupuytren, &c., being obliged to yield their pretensions to a stripling of yesterday, merely because *he* happened to have struggled through the examination of the Dublin College."

Gentle, peaceful readers, only reflect that an Astley Cooper or a Brodie, in addition to the distinguished names mentioned in the extract, would be excluded by some greenhorn of the Dublin College!! Shade of Esculapius—shades of William Harvey and John Hunter—shades of Haller and Boerhaave!! But we turn from this gross monopoly, which has so nauseated us that an effervescing draught, or some morphia hydrocyanic acid (Scheele's, of course), or rather the latest popular favourite creosote, each in a safe dose, must quiet us.

"* At the *annual* election of Professors, such of them as happen to be members of the Court of Censors, take a part in the truly farcical ceremony of re-electing both themselves and their colleagues!!!"

We shall not follow our author in his cauterizations of Apothecaries' Halls, further than to reiterate his opinion, that they ought to enforce attendance on the surgical as well as the medical practice of Dispensaries. If the legislators of halls knew any thing about the practice of Hospitals or Dispensaries, they never could exclude from their curricula of education, attendance on surgical practice. They, forsooth, license men to practise surgery, without any practical knowledge of this branch of medicine; and in imitation of the Colleges of Surgeons, the examiners of which are generally, indeed almost invariably, Hospital surgeons, exclude Dispensary surgery, to put money into their own pockets.

We are free to admit that it is indispensably necessary for every surgical student to attend a Hospital to witness capital operations; but it is as necessary for him to attend the surgical practice of a Dispensary, to learn minor or every day surgery, which is totally neglected in the Hospitals of the United Kingdom. It is no answer that out-patients are attended at Hospitals in the same manner as at Dispensaries. To be sure they are, by students, dressers, and house-surgeons, who buy their privilege, and who, too often, are far inferior to those they presume to instruct. The case is different at Dispensaries, for here the surgeon himself, or in his absence a duly qualified substitute, must perform his duties, and is incomparably superior to the attendants on the out-patients of Hospitals. But what will our author think, when we inform him, that the Apothecaries' Hall of London, whose example will be followed as a matter of course, seriously contemplate to exclude Dispensary attendance altogether from their course of education. For our own parts, we cannot be surprised at any description of folly they may commit. They have bungled from first to last; and they have more regulations at this moment than there are signs in the Zodiac. Now, we would ask the examiners of this company, where can medical or surgical disease in its ordinary form, be more accurately observed than in the persons of Dispensary patients at a public institution, or at their own abodes? In both places, diseases appear in their ordinary forms, uninfluenced by Hospital discipline, and in the aspects in which the young medical practitioner will find them. Our remonstrances with the London Society of Apothecaries have often been attended to, and we are certain will be duly considered on this occasion.

But, to return to Mr. Ellis, we find him censuring the Universities for excluding certificates from rival, and often more talented schools, which no lover of medical science can defend. He next comments on appointments to Hospitals, and shows them in their proper light. He hits our "fair-weather friends" at the Meath Hospital, who appoint each other, so hardly, that we are by no means surprised that they lately drew their lengthy sabres to annihilate four of the six London Medical periodicals that opposed them. These insolent peculators refused Mr. Phelan any information about their unparalleled institution!! They had a temporary and rude triumph; but they never imagined that the very individual whom they most rudely insulted, would have succeeded in convincing the present Ministry by his work, in which the Meath Hospital, or County of Dublin Hospital, is the only *blank*, of the necessity of changing, improving, and modernizing the whole of the public charities in Ireland; and that the very individuals who so Quixotically advanced their lances to demolish us poor benighted reformers, will be very shortly compelled to pourtray their own infamy and corruption before the profession and the public. These are the persons, forsooth, who abuse Mr. Warburton. It is most natural that they should, for he will assuredly destroy the power of the physicians and surgeons of the Meath Hospital to fill up vacancies.

The polity of medicine in Continental Europe and in America, is fully described; but we consider that we have given enough of this lecture to show the calibre of the author. Mr. Ellis is one of the best anatomists, physiologists, and surgeons, of the Dublin College of Surgeons; a zealous cultivator of medicine, an enlightened surgeon, and an honest man.

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The Medico-Botanical Pocket Book: comprising a Compendium of Vegetable Toxicology, Illustrated with Coloured Figures, with their Botanical Descriptions, Poisonous Effects, and Treatment: to which is added, an Account of Mineral Poisons, illustrated with Tests. By G. Spratt, Surgeon, Editor of the Flora Medica, and Third Edition of Woodville's Medical Botany. London: Churchill. 1836.

This is a very useful work to medical students as well as to general readers. It is indispensably necessary for the first, who are properly examined on poisonous plants before they are allowed to commence practice; and to the second, as our fields and gardens abound with plants which are noxious, while the aspect of many of them is pleasing and attractive to children. It is scarcely necessary to observe, that the modern systems of botany are far too expensive for the majority of students and practitioners; so that a pocket volume of this kind was much wanted. The plates are executed with fidelity, and are beautifully coloured, while the descriptions are concise and correct. We strongly recommend this work to medical students.

The London Medical
AND
Surgical Journal.
Saturday, May 21st, 1836.

THE PROGRESS OF REFORM, THE NEW UNIVERSITY, AND MR. WARBURTON'S PLAN.

The declaration of Mr. Warburton in the House of Commons, the other evening, that he was not prepared with any system of reform—and that before he should be able to proceed with his plans, it would be necessary to recall the Committee and go over the evidence again, has created great delight in the bosoms of the monopolists. They have even the temerity to believe, or rather to assert, that the idea of reformation by Act of Parliament is done away with, and that the Colleges will only have to reform themselves; and that such reformation will satisfy the Government and the Profession. We can tell these idiots, that it will satisfy neither the one nor the other; in proof of which we may merely adduce the fact of the intended new University, the charter of which is to be framed by the Chancellor of the Exchequer—and the very great anxiety with which that charter is waited for by nine-tenths of the practitioners in the kingdom.

Do not these anti-reformers know that Mr. Warburton's plans must be regulated, in a great degree, by this projected institution—that, in fact, almost his whole system of reform must be influenced by it? If they do not know this, we now inform them of this fact—and to this we may add, that the delay which the cause of reform has suffered will be fully compensated for, by the excellence of that reformation when it shall come. Instead of thinking the delay of Mr. Warburton is at all to be regretted, we consider, on the contrary, that it is most judicious and proper, because we are convinced of the necessity of making the whole system of reformation harmonious—and that the New University and the New Bill for overthrowing the odious monopolies that pull down and degrade the profession, should go, as it were, hand in hand together.

In spite, however, of the bravado with which the upholders of the corrupt medical institutions attempt to cover their fears, they have evinced, all of them, more or less, some symptoms of terror at the anticipated improvements. It was terror of being annihilated that induced the Worshipful Company of Druggists to extend their period for medical education—to reject candidate after candidate, whose acquirements would have been sufficient a month before, to have passed them with honour. It was terror of being found useless that imposed on the College of Surgeons the necessity of doing something in the way of reform; and they issued a number of regulations which

were to be observed by those who wished to be recognised teachers of anatomy and surgery! It was terror that worked upon the College in Pall-mall, to open its doors to the general practitioner—to forget its antiquated notions of dignity and exclusiveness—and to take up arms in favour of liberality. They were beset on every side, with odium, poverty, and disgrace, ere they passed the rubicon of reform—and when they did pass it, it was not with the flying colours of victory, but with the depressed banners of retreat, a retreat to save themselves from destruction. These fears may be quieted, for a time, by the acknowledgment of Mr. Warburton; but let them not lull themselves into fancied security—the blow must be struck, though it may be somewhat delayed—and if unexpected, will fall with more severity upon them.

DR. HANCOCK AND MR. BATEMAN.

To the Editor of the London Medical and Surgical Journal.

Sir—In answer to your query, I beg leave to state, that it was not the earlier handbills of Mr. Bateman that I objected to, although commenced without my knowledge, but the recent one, or that which you designate the "*Kingly advertisement*," embracing many great names, which appear to have been taken from the list of members in the Medico-Botanical Transactions of 1829. The "Observations" on Sarsaparilla, which Mr. B. has added below, are nearly as transcribed from my papers by my son. In these I did mention the names of Drs. Philip, Ryan, Paris, Sigmond, and Mr. Burnett, as having expressed similar sentiments (or corresponding in several parts with the Essay). It is possible that two or three other names might have been added by the copyist, that is, in the extracts from my papers, for I do not allude to the catalogue of great names which you have commented on*.

You mention having seen an advertisement in my son's handwriting; we wrote no advertisement, however, but only the extracts just alluded to, which Mr. B. has annexed to his handbill*. And the receipt which you saw was for money borrowed (which was shortly after repaid), as stated in a former Number of your Journal; and I must say, I am very much surprised that Mr. B. should permit an insinuation so totally unfounded to go forth—as that I had received money, in any manner whatever, in connexion with the sale of his medicine.

I never expressed an unwillingness that Mr. B. or any one else should profit by my humble labours or experience. I only meant to object to my name being placed on the government stamp, or otherwise rendered too conspicuous; and if I expressed myself in stronger terms than the occasion required, it was under some excitement; because, contrary to my affirmation, some there were who insisted that the preparation sold by Mr. Bateman was partly on my account; and in this they were further confirmed, on its being announced that my name was annexed to the stamp, and which seemed to invalidate my word. It was this alone annoyed me—and not that I cared or felt any repugnance to see my name placed in connexion with an advertisement of any useful discovery or improvement whatsoever: I consider it to be the ignorant and narrow-minded only who suffer themselves to be governed by any silly etiquette of this sort, however it may reign in this metropolis.

I would regret sincerely should any expressions of mine have led you to employ terms which might be construed as libellous, if any one can divine what this is—for, where law, or rather its perversion, makes truth a libel, it is often difficult to guess what is meant by the term.

I am aware you have laboured hard and been ill requited in your endeavours to reform and maintain the honour of the profession, and to guard the public from divers impositions, and shall feel myself bound to exonerate you, so far as I am able, from the *onus* of any legal proceedings which may arise out of my inadvertencies or ill advised acts (if such they be), whether in tolerating and approving of Mr. Bateman's preparation—which I confess I did—or in opposing his going to undue lengths in the advertisement.

Should any further explanation be deemed requisite, I must beg the favour of your publishing the correspondence in your possession, or any part thereof you may think proper.

I am, Sir, most respectfully,
Your obedient servant,
John Hancock.

May 16th. 1836.
Norfolk Street, Commercial Road.

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* You will perceive here, that I have to apologize for allowing the names of the eminent medical gentlemen just cited to be used in the hasty extracts alluded to—not considering or aware at the time that the extracts were intended to enter an advertisement.

* The handwriting of Mr. Hancock was appended to the advertisement, and corrections were made in the latter.—Ed.

GUY'S HOSPITAL REPORTS.

Fracture of the Pelvis—Dislocation of the Os Innominatum—Rupture of the Ligaments of the Knee-joint.

Henry Bridgen, aged 28, a waggoner, of middle size, stout make, and light complexion, was admitted into Accident Ward, at half-past nine P.M., October 30, 1834. He states himself to have been of temperate habits, and to have possessed good health. A few minutes previous to his admission, he fell from the parapet into the channel, in consequence of his foot slipping from the curb-stone; and two wheels of a heavy waggon, laden with ten empty rum-puncheons, passed over him. While being carried to the hospital, he was unable to retain his urine and fæces, which gave rise to a suspicion that the spinal cord was injured; but these effects appeared, subsequently, to have arisen from the shock and fright. He had been perfectly sensible from the time of the accident. All the ligaments of the knee-joint, excepting that of the patella, were ruptured; and the tibia, connected with the thigh by little more than by this ligament and the skin, swung to and fro from the femur, like a pendulum. None of the bones forming the joint were broken. The skin, though not lacerated, was much bruised; and, on the inner side, was drawn inwards beneath the femur, so as to form a fold or pucker, which took the circular form of the internal condyle. It was thought that this arose from the internal semilunar cartilage being driven inwards, and dragging the skin along with it; and also, in part, occasioned by the internal condyle having burst through the fascia. The pelvis had also sustained serious injury; the left os innominatum being dislocated from the sacrum backwards, so as to allow of the fingers being placed on the whole of the sacro-iliac synchondrosis. The anterior and superior spinous process of the ilium was broken off, and could be moved about on the abdominal muscles. The patient complained of great pain in the pubic region, but there was no separation of the pubes to correspond with the dislocation of the ilium. This retrograde movement had been permitted by a fracture which traversed the bone from above to below; and was supposed to run from the anterior and inferior spinous process of the ilium, through the acetabulum to the ischiatic notch: its precise direction, however, it was almost impossible to ascertain. The skin was entire; but beneath it, extending over the nates, and upper and outer part of the thigh, was an enormous bag of extravasated blood. There was perfect command of the bladder and rectum. The patient laboured under great depression: pulse 90, and very feeble; skin cold; countenance pale and anxious. A flannel bandage was applied round the pelvis; and he was placed on his back, with a pillow put under the left os innominatum, so as gradually to restore the bone to its position. The knee was laid on a double-inclined plane; and bandages carried lightly round the thigh and leg, to prevent motion. Two grains of calomel, with one of opium, were administered; and an ounce of the julep of ammonia ordered to be given every fourth hour.

Oct. 31. He has had no sleep; but his back is less painful, and his knee gives him but little uneasiness. The depression has passed away; and the re-action, though considerable, is not alarming. Pulse 120, and rather hard; tongue white.

Nov. 1. Pulse 107; skin cool. The pain in his back continues to diminish, and the knee remains easy. As his bowels have not been opened recently, a purgative is to be administered.

2. Evidently improving. Pulse 102, and soft; bowels freely open; tongue moist. Has had some sleep, and is in very little pain.

8. He has remained in much the same state since the last report; free from fever, and, except when moved, from pain.

During the three following weeks, this man continued steadily to improve. He had the appetite, the sleep, and the pulse of health. The fractured portions of the pelvis appeared to be rapidly consolidating; the dislocated bone regained its normal position; and, except some occasional shooting pains, and his confinement to bed, our patient had nothing to remind him of the injury he had received. The next report worthy of notice is, that of

Nov. 28. He is not so well to-day. He has passed a restless night; has a flushed face; and his pulse is 112. Has no thirst, no pain in the head or back, and his bowels act sufficiently. On examining the knee, the skin, immediately above that portion which had been tucked in beneath the internal condyle, was found to have ulcerated. A poultice was applied over the joint; and rags, dipped in a lotion of opium and lime-water, laid on the ulcer.

29. The unfavourable symptoms have passed away; he is free from fever; and the ulcer on the knee does not appear to be connected with the joint. He feels the pelvis to be becoming stronger; can make use of the hip-joint, without pain or difficulty; and sits up in his bed for some time together.

From this period, nothing occurred to retard his recovery. The immense ecchymosis around the hip-joint was gradually absorbed. The ulcer over the internal condyle proved rather obstinate, but at length healed; and about the middle of December the limb was removed from the double inclined plane, and cased in strapping. In the beginning of January, he was allowed to

get up and walk about on crutches. His knee was flexed, but he possessed considerable power over it. His back felt stiff; and, after bending, he had some difficulty in recovering himself. In all other respects, he was in perfect health. At the end of January, he left the hospital. He had acquired great power over the knee, so as to perform all the legitimate motions of the joint, nearly to their full extent. After much exercise, he felt pain in the back. There was some projection of the trochanter major of the injured side, which probably resulted from the line of union of the fractured portions of the pelvis not being quite accurate.

Laceration of the Internal Ligament, and partial Dislocation of the Knee-joint.

W. Ward, aged 29, a glass-blower, was brought to Guy's Hospital in the middle of the night of the 6th of September, 1833, for an injury to the knee, which arose in the following manner. He says, that, whilst engaged in a drunken broil, he was accidentally thrown down stairs; and that in the fall, his right foot was thrown out, and that there was a large projection at the inner side of the knee: the patella remained in its natural situation. The limb was extended forcibly by a person directly after the accident, and it regained nearly its natural appearance. On examining the knee, at his admission, no fracture or dislocation could be discovered; but the internal lateral ligament was found completely torn through; as was also, in some measure, the tendon of the vastus-internus muscle. On turning the foot and leg outwards, a fissure could be felt between the inner condyle of the femur and the head of the tibia, into which the finger might be depressed.

The limb was placed in a straight position; leeches and warm fomentations applied to the joint; and, the day after, a long straight splint was applied to the outside of the leg, extending from the hip to the foot; by which means the limb was kept extended. This position, however, did not appear to keep the bones in proper apposition: the limb was therefore placed on an inclined plane, which appeared to keep the joint in better position: but, in order to hinder all motion, two or three layers of the emplastrum roborans were applied to the joint, and this, with the whole, bound firmly to the inclined plane. After keeping it in this position, and the man quiet in bed, for about a month, he was able to get up, and bear a weight on it; and in six weeks he went out of the hospital, and resumed his occupation, with the power and motion of the limb but little impaired.

Partial Dislocation, inwards, of the Knee-joint.

John Clark, aged 29, was out, on the 9th of February, 1828, with a party of smugglers; and whilst running very fast, he forgot, in his haste, a rail-fence, which was carried along the bottom of a ditch, in such a manner, that the ground on each side of the ditch was as high as the top of the fence. His left leg passed between the upper bars of the fence; and his body, from the impetus with which he was running, was carried over to the other side.

I saw him two hours after the accident, when the appearances were the following. The left leg formed a remarkable angle with the thigh, having a direction inwards; and was so far twisted, that the spine of the tibia faced, in a considerable degree, towards the other leg; at the same time, the inner side of the leg faced upwards, and the sole of the foot faced towards the other leg. The outer condyle of the os femoris projected remarkably, and there was a corresponding depression opposite the inner condyle: the patella was thrown very much inwards, following the course of the tibia. The limb was bent nearly at right angles. It was evident that the tibia was thrown inwards, so as to be only partially opposed to the lower extremity of the os femoris.

An attempt was first made to reduce the limb, by carrying it round a bed-post: however, the direction thus given to the limb appeared to oppose the reduction. Extension was then made from the ancle, and counter-extension from the thigh; at the same time bringing the limb to a straight line; and, as I rotated the foot and leg outwards, by grasping the toes, and pressed the outer condyle inwards, the luxation was easily reduced, but in a gradual manner, and without any snap.

The usual remedies to prevent inflammation were afterwards employed; viz. perfect rest for a considerable time, evaporating lotions, &c. In April, he was ordered a laced knee-cap, which he wore until July. He went to work in the month of May; and, by the following Michaelmas, he found the limb nearly as useful as the other; so that in the ensuing winter he made a long voyage, without finding the limb at all deficient in strength.

Hospital Reports.

NORTH LONDON HOSPITAL.

Rupture of the Stomach.

Ann Sharman, aged forty, was admitted April 23, under the care of Dr. Elliotson. Her bowels have not been opened since the 21st: on the evening of that day she began to have severe pains in the abdomen, aggravated in paroxysms; these continued all night unrelieved. The next morning a medical man relieved her considerably by the abstraction of blood. She took some

calomel and purgatives, but she vomited them all: no medicine remained on her stomach from that time to her admission into the hospital, and her bowels were never relieved. She has been subject to pains in her bowels, which in general have been quite regular. On admission, her abdomen appeared much swollen and tympanitic: there was tenderness on pressure: she could lie on her side as well as on her back, and her attitudes were not constrained: the swelling was not confined to the course of any particular intestine: there was no hernia in any of the usual situations: the pain in the abdomen worse at some times than at others; she is very sick: tongue covered with a dirty white fur: skin pale, not hot; pulse 96, small.

℞. Olei terebinth. ℥ iij;
Mucilaginis, ℥ j;
Aquæ calidæ, Oiij.
Sit enema statim adhib.

Creosoti, *m.* j. c. Oleo Croton, *m* j. et rept. 2nd quaq. hora, nisi ducta fuerit alvus.

The enema was given immediately; about a cupful returned. She began to take the pills about four P. M. on the 23rd, and continued them regularly till seven A. M. on the 24th, taking in all nine pills. She did not vomit any of them, but felt rather sick sometimes. Mr. Taylor was informed, at half-past four A. M. on the 24th, that she was no better: he ordered the enema to be repeated. He saw her about six A. M., and found her still in the same state: she had passed a very bad night as to pain: she had voided a considerable quantity of high-coloured urine: she complained of feeling cold: her pulse was small, and she looked anxious: her skin was rather cold: the abdomen still much distended. The enema gave no pain; but, on the contrary, seemed to give her a little relief. As Mr. Taylor could find no cause for the distension of the bowels by flatus, he directed his attention to the means of removing this. For this purpose he introduced a long gum elastic tube, with holes at the side, but not at the point—in fact, part of the stomach-pump apparatus—as far into the bowel as he could pass it. It was introduced with the greatest possible care, guided by the finger, and gave no pain: it could not be passed more than nine or ten inches: no air, however, escaped. The stomach syringe was then affixed to the tube, and seven or eight pints of lukewarm water were injected: a considerable quantity of this returned again immediately; a good deal also remained. At some times the piston was depressed with considerable force; at others, no force was required to depress it. This produced no effect at the time; but at half-past eight o'clock the bowels began to be moved. She had four very copious evacuations, containing a considerable quantity of fœcal matter; the first was dark-coloured, and contained scybalæ; the rest were of a better colour: she did not pass much urine with the motions. She had passed no wind in the night, when she made several abortive attempts to evacuate the bowels. After the motions, she expressed herself much relieved; drank two cups of tea, and said she hoped all would now be well. About nine o'clock she rose from bed to use the chair, fell back, and instantly expired.

Post Mortem Examination.

Abdomen.—Immediately the peritoneum was cut into, some thin fœculent fluid escaped, and on raising the parietes, an aperture was seen on the anterior wall of the stomach, about the size of a small pea: the parts about were thickened, and ulceration had evidently taken place there: the edges of this circular opening were hardened: the peritoneum was thickened, and redder than natural. The visceral layer more so than the parietal. The intestines and stomach were slightly glued to each other. Fibrine was found effused in a sheet of a yellow colour on the convex surface of the liver: the left ovary was diseased, about the size of a hen's egg, forming a cyst containing fluid this was probably the reason that the tube could not be introduced further into the intestines during life.

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Clinical Remarks on a case of Bronchitis in a deformed Man, and on a case of Cyst in the Liver. By Dr. Elliotson. May, 1836.

The first case I have to speak about to-day is one of bronchitis, occurring in a little, deformed man, who you will remember in the bed behind the door in the small ward—he states himself as a ladies' shoemaker—he is very much deformed about the spine and sternum, though his chest is rather capacious. You will find that persons of this description are very subject to bronchitis—you will often observe them with livid lips and shortness of breath—palpitation of the heart also coming on when there is the least disorder of system—they often die of bronchitis. This man had sonorous rattle, particularly on the right side; his eyes were rather suffused and red; his tongue white; his pulse quick, and rather full. He had caught a severe cold ten days before his admission and the symptoms of cough, pain in the chest, and difficulty of breathing, with copious expectoration, had increased up to the time of his admission here. These deformed persons, as you will expect, are generally feeble, though you will occasionally see some of them rather robust; but in general they are emaciated and scrofulous, with a weak voice, and they are pale and cold. This man was one of this sort; I therefore had him bled to six ounces only, and gave him three grains of the hydrargyri submurius every four hours. These means were quite sufficient to

ubdue the symptoms in a very short time. On the 21st, (he was admitted on the 19th of April) he was much better, having very little cough or expectoration; his mouth had not been made sore; we gave him a drachm of the liq. antim. tart. every four hours, on the 23rd; he was quite well in the course of two or three days. You must not be surprised, if in these deformed cases, violent palpitations come on; you must always give a careful prognosis in these sort of cases as the patients often die from complete exhaustion, after the acute symptoms have been subdued.

Inflammation of the Liver—Cyst in that Organ.

I will now refer to the case of Dennis Sullivan, who was admitted as long ago as December 1st of last year. The report states that he is a painter, much exposed to the vicissitudes of weather, of immoderate habits when young, and makes rum his principal beverage now. He has generally enjoyed good health until about thirteen weeks ago, when he caught cold, and was seized with a violent cough and pain in the chest, accompanied with expectoration. He continued his employment, and became gradually worse, and five weeks ago was obliged to confine himself to his room. On his admission, he complained of pain in his right side, increased on inspiration, inability to lie on that side, cough with expectoration, and he sometimes was troubled from inability to sleep. He describes the pain as being dull and heavy, as if there was a weight in the part; his tongue was clean; bowels open; appetite good; he had no thirst; pulse 100, weak; urine voided in good quantities, and its colour also good. Now, you will observe, this man had slight affection of the chest; but his great complaint was in his right side, where there was a pain, increased on inspiration; he was evidently labouring under inflammation of the liver, and that pretty severe, as was evidenced by his inability to lie on his right side.

On examining the chest and abdomen, the chest was found to give a good sound on percussion, but mucous and sonorous rattles were heard on both sides; the pulsation of the heart appeared to be also augmented. The abdomen was greatly enlarged, hard, and tense; the liver appeared to extend to the right lumbar and iliac regions; it was very tender on pressure; there was fluctuation at the lower part of the abdomen. We detected also, after the man had been in the hospital some time, that there was fluctuation in the liver itself; there was evident enlargement and inflammation of the liver; the first was manifested by merely observing with the eye; the second by the extreme tenderness on pressure. I determined on treating the case with mercury, and the hydriodate of potash, and as much antiphlogistic treatment as I could adopt. We rubbed iodine over the abdomen, and gave him five grains of the pill hydrargyri, with ten grains of kino three times a-day; he continued to improve under this treatment, the liver became smaller and softer. On the 1st of March the report says, "he was seized yesterday morning with pain in the hypogastric region; the abdomen is very tense; skin yellow and hot; pulse quick and rather full; he was bled to some extent, and his mouth was made sore; we were then able to go on with the hydriodate of potash, and the rubbing in of the iodine, as we had done before this attack; he took a large quantity of the hydriodate of potash—as much as eleven scruples of the solution three time a-day: the liver, I should say, had decreased in size at least one-third, and it had become softer; the large quantities of the hydriodate of potash did not produce any unpleasant symptoms; diarrhœa, though, came on once or twice; as he complained at the end of last month that he was very weak, we left off the medicine, and he was allowed a pint of porter daily; he died suddenly, however, on the 5th of May. On examination after death, the legs and thighs were œdematous. I should have said, that about a fortnight before he died, œdema of the legs came on; the abdomen was very much distended, and tympanitic; slight effusion of dark-coloured fluid into the thorax; very little blood in its right cavity, and that very thin and watery; very little blood in the vena cava; the liver considerably coated with lymph adherent to the surrounding parts, and considerably enlarged. The small edge adhered to the transverse colon, and this to the walls of the abdomen—posteriorly and laterally it adhered to the kidney and peritonæum, so that a cavity was contained between the liver, colon, and posterior and anterior parts of the abdomen, which contained a quantity of yellow serum. Intestines a good deal distended with air—some effusion into the peritoneal cavity. Two distinct cavities were formed in the liver; one in the thin edge, capable of holding a few ounces; another occupying about two-thirds of the right lobe, making it look like a great bag. This contained some pints of pus, more like that of a tubercular cavity, than laudable pus; portions of gelatinous fluid were mixed with it—portions having a similar form—others no definite one; it was of very offensive odour. The parietes of the abscess were soft and stringy, and not apparently containing any fibrous membrane. In many parts they appeared soft. The gall-bladder was empty, but stained bright yellow. The small abscess appeared to contain a more membranous lining than the large one, but was very imperfect. On dividing the vena cava on the removal of the liver, a considerable quantity of pus ran out of the hepatic veins, where they join the vena cava. No trace of pus could be found in the

latter, which was examined in its whole extent; there was congestion of the liver, the spleen was dark, and its surface marked in several places with effused lymph.

Now, you will remember, we felt fluid in the liver before death; we still felt fluctuation there after he died; and on making an incision into the part, we exposed this cavity, (showing the parts); the fluid that was contained in it was partly gelatinous, appearing, indeed, as though a great portion of it consisted of hydatids broken up. I am inclined to think it was so; the only question, however, is whether the cavity was an abscess, containing pus, in which hydatids had been accidentally formed, or whether it was a cyst, containing pus, and not properly an abscess. I thought at first that the man might have died from pus getting into the veins; but after a careful examination, we could detect none in the vena cava, though two hepatic veins contained some. I attended a lady, who had been afflicted with a pain in the region of the liver for some time. On opening it, we found a cyst attached to the under edge of the right lobe of it, containing a sort of gelatinous-looking substance, as in this case; she had expectorated portions of the same kind of stuff for some time; it appeared to consist of hydatids broken up.

In the case of Sullivan, had it been a true abscess, he would have had rigors and hectic, which he did not have. I am, therefore, inclined to think altogether, this was a case of a cyst, containing hydatids and a considerable quantity of pus. This, however, is of course a matter of opinion.

DEATH OF DR. JOHN FLETCHER.

We leave the disreputable writers in a disreputable Journal to mourn over the loss (!) which science has experienced in the death of the Warrens and others, whose chief recommendation was a large fortune and a chariot and pair; and we turn with pain to record the premature demise of Dr. John Fletcher, a man whose whole career has been an unceasing effort to advance the science which he so worthily taught.

Dr. Fletcher graduated in the University of Edinburgh in the year 1816, and at the period of his death was in his 42nd year. He was for many years employed in private teaching, and did not appear as a public lecturer until the year 1830, when he commenced a course of lectures on Physiology, in which subject, as well as in that of Medical Jurisprudence, which he entered upon in 1831, he was unrivalled in the Edinburgh school. His writings are voluminous, but chiefly anonymous. We have before us a series of letters written by him during his time of study, and intituled *Laurenti Jo. Rubi Epistolarum Edinburgensium Libri 3. Quas epistolas ex Edinburgo, donec ibi Doctoratum in Medicinâ venabatur, ad familiareis scriptitabat:* they are specimens of the most finished latinity. He was a frequent contributor to the Library of Useful Knowledge, the Library of Entertaining Knowledge, the Edinburgh Medical and Surgical Journal, &c. &c. His latest production was the admirable physiological lectures originally published in this Journal. He was master of the dead and many of the living languages; an admirable draughtsman too; and his example of teaching by diagrams has been extensively followed in Edinburgh. Many are the individuals who can truly say that to him they owe their taste for, and their just appreciation of, the beauties of medical science; many there are whose only ambition, on placing themselves under his tuition was to obtain a degree, but who left him with a desire to excel; and many there are who, with us, will appreciate the extent of the loss which the Edinburgh School has undergone in the abrupt and mournful cessation of his labours. He had been several times, of late years, threatened with apoplexy, the consequence of excessive mental application; and though we have not as yet precise information as to the cause of his death, there is every reason to surmise that his life was extinguished by that disease. Of him, indeed, as of Kirke White, it may be sung—

"Oh! what a noble heart was here undone,
When Science' self destroyed her fav'rite son!
Yes, she too much indulged thy fond pursuit
She sowed the seeds, but death has reaped the fruit.
'Twas thine own genius gave the fatal blow
And help'd to plant the wound that laid thee low."

DEATH OF MR. MILLARD.

It is with much regret we announce the decease of Mr. Millard, the late lamented Demonstrator of Anatomy at the Webb Street School, who expired at his house in Abingdon Street, on Saturday the 7th instant, having fallen a victim, in the 27th year of his age, to that destructive disease, phthisis pulmonalis.

He was the second son of the Rev. C. F. Millard, of Norwich, in which city he commenced his professional career, under the auspices of that distinguished surgeon, Mr. Crosse. Although young in years, Mr. Millard had acquired great celebrity as a teacher; and it is due to his character to state, that the honourable station to which he had attained was the result of no fortuitous events, but was the just reward o

talents well directed in the acquisition of professional knowledge, and of integrity of conduct conspicuously evinced in all the relations of private life.

Thoroughly master of the subject he had undertaken to teach, and possessing acquirements of a superior order, he was distinguished not only by a degree of industry which has been rarely excelled, but especially, by the very lucid, and yet comprehensive manner in which he conveyed to his hearers the details of even the most intricate branches of human anatomy.

The high estimation in which Mr. Millard was held as a teacher, by those who are best qualified to judge of his merits, was sometime since evinced by his pupils presenting him with a lasting memorial of their esteem and respect; and we should neither do justice to the worth of the lamented deceased, nor to the feelings of his numerous friends, if we did not state that his many amiable qualities had endeared him to every member of that school, the reputation of which he so importantly contributed to uphold.

WESTMINSTER MEDICAL SOCIETY.

Saturday, May 13th, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Artificial Passage for the Urine.

Dr. JOHNSON related a case which had much interested him, and which he had only seen two instances of during his practice: the discharging of urine from an artificial passage above the pubes, for a very considerable time; the natural passage being closed. The first case he had seen was that of his printer, the late Mr. Thorne, who suffered from an affection of the prostate gland; retention of urine took place. Mr. Abernethy was called in, who, not being able to pass a cathether, punctured the bladder above the pubes. The urine continued to pass through a canula for the period of nine months, at the end of which time, being an old man, aged 70, the patient died, worn out with the irritative fever, disease of the prostate gland, and other affections; but he did not seem to sink from the irritation produced by the false passage. The second case that had come under Dr. Johnson's observation, was that of a gentleman, who. eight years since, became affected with retention of urine, consequent on enlargement of the prostate. As the gentleman who attended in vain endeavoured to introduce the catheter, Mr. Laurence was sent for, who passed the catheter, as he supposed, into the bladder, but no urine was evacuated. As it was a retention of four or five days, an operation was deemed immediately necessary. The bladder was punctured above the pubes. He has now passed his water from a canula in that place for eight years. In addition to the canula, which was constantly kept in the bladder, except when it was taken out to be cleaned, a stop cock was attached by which he was enabled to let out the urine at pleasure. For several years he made water at regular intervals. He did not suffer any great inconvenience from the presence of the apparatus. So lately as last summer he had journeyed through England, Wales, and Scotland, a distance of some 1,500 or 1,600 miles, without experiencing any thing distressing: soon after his return to town, he felt an ardent desire to have the natural passage opened; a surgeon of some eminence was called in to the case, and he passed, as he considered, the catheter into the bladder; there was, however, nourine evacuated. He has been, since that operation, very ill, suffering from chronic inflammation of the bladder; he cannot now allow of any accumulation of urine, as the bladder is so exceedingly painful, if any be present; he is now dying from irritative fever, caused by this extreme sensibility; he has lost his appetite, has fever, rigors, and furred tongue, and is rapidly sinking. He (Dr. J.) should think the cavity of the bladder would not now contain more than would lay in a small egg shell, if, indeed, so much. It was rather curious that for upwards of seven years the apparatus should have produced no sort of ill effects, and that after the last operation the change for the worse should have been so decisive and so sudden. The operation had been performed in September or October last; muco purulent fluid had followed the last introduction of the catheter. Previous to the last operation he had been in remarkable good health; occasionally he suffered from very slight pain in the bladder, to relieve which he was in the habit of injecting about half a pint of tepid water, and then draw it off again; this afforded him relief.

Mr. SMITH remarked, that he had seen very ill effects generally arise from the puncturing the bladder above the pubes, as it generally produced a most severe irritation, which very shortly destroyed the patient; he thought that puncture by the perinæum was in almost all cases the preferable one, particularly in abscesses of that region.

[The remainder of the proceedings will be given next week.]

MEDICO-BOTANICAL SOCIETY.

Wednesday, May 11, 1836.

THE anniversary of the Society was held this evening at the theatre of the Royal Institution, when the President, Earl Stanhope, delivered his address to a numerous audience of ladies and gentlemen, among whom we noticed the Duke of Somerset

and Sir Henry Halford. The address embraced a review of the proceedings of the Society during the past year, and entered into the correspondence of foreign and other members; eulogies on the lately deceased illustrious members of the Society were given. The motion of Sir Henry Halford, that the president be requested to print his address, was carried.

The theatre, adjoining rooms, and passages, were laid out in the most tasteful style, with various plants, and splendid specimens of materia medica, some of which were briefly described by Dr. Sigmond.

PROSPECTUS OF THE LIVERPOOL APOTHECARIES' COMPANY.

It is needless, perhaps, at the present moment to comment upon the general utility of Joint Stock Companies, which has at once become so obvious to the public.

It may, however, be necessary in proposing the establishment of an Association to be called "The Liverpool Apothecaries' Company," to mention a few of its peculiar advantages, particularly such as will be found to benefit the public at large.

It has been for some time a matter of consideration among the medical men of this town to form an establishment where they could procure drugs and medicines of genuine quality, entirely free from the deleterious admixture which they have found so frequently to thwart their skill and thus to add considerably to the sufferings and risk of their patients.

In the formation of the "Liverpool Apothecaries' Company," under the direction of eminent members of the Faculty, and others of long experience in the business of Chemist and Druggist, such an establishment will be offered to them at once;—for the success of which to the Shareholders it is needless to refer to the Apothecaries' Hall, London, and the Apothecaries' Company, Glasgow, the shares in the latter of which are now at an amazing premium.

The advantages which this town possesses over all others in the kingdom for an establishment of this kind must be obvious to all, particularly in the means of procuring a genuine supply of Foreign Drugs on the most advantageous terms, as well as for the disposal of a very large quantity among the dense population of the immediate neighbourhood, for the furtherance of which it may be found necessary to have a branch of the establishment in Manchester. This will be left to the consideration of the Directors after the first general meeting of the Shareholders.

To make the Liverpool Apothecaries' Company efficient, it is proposed that the capital shall be 100,000*l.*, to consist of 10,000 shares of 10*l.* each, two shillings and sixpence per share to be paid on allotment, and further calls as the Directors named at the first general meeting shall deem necessary for the interest of the Company.

It may be as well to state that Members of the Faculty, and persons engaged in the business of Chemists and Druggists, will have a preference in the allotment of shares.

Although it cannot be denied that there are many respectable establishments at which medicines of the very best quality can be obtained; yet, from the notorious adulterations which are known to exist, there is always some distrust in the mind of the individual who unfortunately requires them.

In regulating the detail, therefore, of the present company, particular care will be taken by the directors to obviate this feeling.

It is intended that the drugs shall be selected of first-rate quality only. The correctness of the chemical preparations manufactured on the premises will also be strictly examined. In fact, no article will be allowed to be sent out until the quality be sanctioned and approved of by a committee of medical men.

Dispensed by competent assistants, these advantages will surely be properly appreciated by the public, and a mutual benefit will be derived therefrom.

It is intended that the laboratory and compounding departments shall be on an extensive scale, always open to the inspection of Members of the Faculty, being shareholders, and under certain restrictions, to their pupils also. This to the latter will, no doubt, be considered a valuable privilege.

The want of an establishment of this kind has long been felt by the mercantile community of this port, as it is well known that houses receiving large orders for exportation are obliged to have them executed in London, and importers, on the other hand, are compelled to look to the same quarter for a market.

King's College.

The names of Mr. Guthrie, Mr. Earle, Mr. Mayo, and Mr. Pettigrew, are on the list of the Council of King's College, with a view of soliciting some of the above individuals as professor of surgery.

Dr. Marshall Hall is, we understand, a candidate for the chair of practice of medicine.

Mr. Green has retired from the profession, except that he remains attached to St. Thomas's Hospital, in consequence of his paternal income of 3,000*l.* a year.

Charing Cross Hospital.

The following resignations have taken place in the Medical School of the Charing Cross Hospital:—Mr. Pettigrew, and Mr. P. B. Lucas on anatomy; and Dr. Sigmond on materia medica.

MANCHESTER ROYAL INFIRMARY

THE

London Medical and Surgical Journal.

No. 18. SATURDAY, MAY 28. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE XI.

Derangement of the Nerves, of a Functional kind.

Visible, and tangible, and local disorders of the nervous trunks or ramifications were principally the subject of the last lecture; but I have repeatedly alluded to the importance of recognising the fact, that a vast affection may fasten upon the sentient organization in a sort of functional manner, and so interfere with an integrity of feeling, and locomotive power and intellectual capacity, as to occasion manifest and very extensive change, while the structural circumstance shall be such as to defy every attempt of the anatomist or pathologist to predicate disordered existence. This principle is so abundantly at work in all deviation from health as, in a very great measure, to stultify conclusions drawn from *post mortem* investigation; and it is at work, too, beyond what is generally appreciated by some of our physiologists, who are too fond of demonstration to admit that *dynamia* or *adynamia* may exist without being displayed as well by altered structure as altered action.

It is in this particular, I think, that the disciples of Dr. Hahnemann are more consistent than the allopathists. I am not prepared to defend the assumptions of these individuals—I am not now intending even to canvas the rectitude or the absurdity of their practical indications—but I *am* prepared to say, that sentient and fibrous impulse may, as in the case of electricity, be transmitted from part to part with more than lightning's rapidity—that thought shall be obstructed, or controlled, or "have free course and run," and be expanded—that pain will obey the same laws—and that, in a word, functions of all kinds shall undergo every modification through the medium of animal and intellectual organization, while the change that this sweep and sway shall be connected with, either in the way of cause or effect, shall no more be traceable than shall the course of electric impulse, or if you will, electric fluid, through a line of almost interminable length.

It is allowed on all hands that nervous agency is in some sort a matter more out of the reach of our perceptive powers than that of the blood's circulation, or of the assimilation of dead to living matter. We *see* an inflamed part, and we know that it consists of a disordered action of the circulating organs; at least we know that such disorder is present. In like manner we can perceive the tumefaction of a lymphatic gland; but a limb, or an organ, may oftentimes be deprived of its locomotive or perceptive power, without the eye of the observer, or the knife of the dissector, being able to detect any difference in the affected parts from their healthy seeming. When we, therefore, say a malady is nervous, we imply that the faculty of perception is especially implicated; and knowing that the nerves are the media for that faculty, we infer that these are its seat or source.

Now, the popular distinction between nervous and other disorders is taken from the circumstance that this impression—perhaps almost always the first link in the chain—leaves the primary point of attack on some occasions, and spreading, as it were, through the vessels or through the absorbents, or through the membranous structures, causes commotions in these several tissues; while, in other cases, the course of the malady seems rather through the nervous branches themselves, leaving the other parts comparatively exempt from disorder. In these last cases, then, a nervous ailment is made out.

And these ailments assume a variety of shapes and degrees, to the extent of defying all the grasps of the pathologist, or the sketch of the nosographer, to give them habitation and name. Let me just slightly glance at one or two of them, so as to prepare me for my practical corollary.

In the first instance, however, it may be proper to state, that Dr. Cullen, in his class Neurosis, includes comatose disorders, which imply loss of sense and motion, with sleep, such as we meet with in apoplexy; then he ranges adynamia as an order, and includes fainting, indigestion, &c.: his spasmi comprehend irregular action, and the order vesania a defective judgment. The nosological ailments comprised under these heads, viz., madness, spasms, syncope, apoplexy, &c., will be afterwards commented on, this lecture being devoted to the introductory mention of abnormal circumstances, that partake of all, and yet would scarcely be recognised as any one.

I may first advert to a very curious fact, viz., the loss of the perceptive faculty, or, at least, its derangement, while every voluntary muscle remains obedient to the mandates of the will. An instance of this we may take from Haslam, who mentions the case of a female having dreadfully mangled her jaw by a piece of glass, in an ineffectual attempt to commit suicide, without displaying the smallest pain during the infliction of the injury. In my own establishment at Peckham, I recollect the case of a person so wounding his genital organs as to render him incompetent to the venereal act, and who stated that the pain at the time was nothing—this was only felt when he came, as we should vulgarly express ourselves, to his senses. Dr. Heberden, too, speaks of an individual who, under the influence of some temporary depression and delusion, cut away the whole of his testicle and penis, and who afterwards averred that he had not the smallest recollection of any pain from the process; and how often do we see religious or political enthusiasm absorb the faculties to such a degree that inflictions of the most violent kind are borne almost without consciousness.

"Perhaps," says an eloquent writer, "no combinations of affections could be feigned which cannot be matched in faithful medical reports, and the reality exceeds whatever the most fertile fancy could invent, in readiness to be affected, in violence, in the whimsical manner in which the symptoms are grouped, and in the rapid changes from one state to another. In this last respect, what is stated in romances and masks concerning the power of the enchanter's rods to induce in a moment the stiffness of a statue, or to restore the spell-bound person to motion, is much exceeded in nature; and it is possible that fiction first took the hint from this species of reality, since it always must borrow from one species of reality or another. That the dropping of a hair-pin on the floor should make a person start from her seat, and fix her in a preternatural position, by occasioning preternatural fixed contractions, and relaxations equally preternatural, till she sink with insensibility, from which she awakes into vehement delirium, is hardly credible to those who are conversant only with the healthy, and the sorts of sickness to which the robust are liable.

"On comparing an individual liable to these sad varieties of being to an engineer, who stands unmoved amid the thunder of a battery, to the seaman who maintains his feeling on the ropes or on the deck of his vessel, reeling under the shock of the elements, or to the Indian, who exhibits the signs, and probably feels the throb of intense delight while the flames are preying on his flesh, how astonishing do we find the range of human susceptibility to the effects of the powers by which we are surrounded."

And what is equally astonishing, we find, without at all knowing why it should be so, that the same individual, at different times, is in the same measure differently susceptible; and there are no individuals who have at all times the like measure and degree of either general or local excitability, the shades varying *ad infinitum*, without the anatomist being able to ascertain any organic mutation, and without there being a particle, more or less, of matter in the bodies' composition, from which to infer the change.

On the other hand—I mean as opposed to the insensibility just referred to by quotations from Haslam, and allusions to other cases—on the other hand, we find an acuteness of sensibility, which is quite inexplicable by any *à priori* reasoning or anatomical peculiarity. Haslam, I remember, speaks of a man who was so sane and rational in all his deportment, that he was about being dismissed, but was detained in Bedlam on account of a communication he made to his doctor of an important secret. "Never," says the man, "venture to walk in a certain apartment," pointing out the one referred to, "for there is a subterraneous fire under the room, which communicates such a heat to the floor, that I never walk there without having my feet burnt."

Now, whether this deviation from healthy condition were deranged perception, or deficient judgment, or undue consciousness, it is sufficiently evident that some portion of the nervous system was its seat; and yet, where is the anatomist or the pathologist who should say where, and in what manner this system was implicated? and who would be bold enough to fix upon vascular circumstance in the way of explication?

Another very remarkable affection to which the sentient organs are obnoxious is manifested in the existence of perception to a very considerable extent, without the power of conveying to the by-standers the presence of such perception; a remarkable example of which is recorded by Reid, in his work on nervous disorders. It was the case of a female whose perception was so

acute as that she could recognise the step of her physician on the first stair, and yet when he entered the room, she was incapable of speaking to him. This variation, or want of correspondence between feeling and the capacity of expressing such feeling, is in a degree common to all of us. The rattling orator, with his fluent common-places, is very often many degrees in intellect and power beneath the man who finds himself at a loss to acquit himself like a man, when called on to address an assembly; nor is the difference in all cases traceable to diffidence; but what excites the train of one order of functions in one individual, is without power and effect on the same order in another; and why this should be, we are very far from being able to give any structural account of. "Still more remarkable," I have elsewhere said, "is the fact that disorders of the body will sometimes have the effect of locking up, as it were, and concealing from view the mental energies for a long series of years; and when it is asked where is the immortal mind of a paralysed individual in a state apparently of mere organized vitality? we might appeal to instances, and they are not a few, in which, just prior to the period of total extinction of the living principle, the soul seems to come out from its hiding place, and to cast a parting glance at the surrounding scene. Who has not dwelt with agonizing delight upon the transcendently beautiful representation by Mrs. Opie, in her inimitable work intitled Father and Daughter, where she makes the return of reason in the distracted parent to be the signal that all is about to close with him? Some years since, my respected friend and colleague, Dr. Hancock, now of Liverpool, stated to me that he had been at the death-bed of an intellectual individual who had been deprived of his faculties by a stroke of palsy—nay, to use my friend's words, "had been for some years in a condition of drivelling idiocy"—but who, shortly before his death, was restored to the full possession of his rational powers; he summoned his astonished family around him, delivered to each of them his parting advice and benediction, and then calmly resigned himself to a peaceful and conscious dissolution!

Somnambulism constitutes a curious instance of this partial train of associate actions being put into exercise. It will be for me afterwards to inquire how far the phrenological explanation of this phenomenon is satisfactory; suffice it now to say, that the most acute perception is here accompanied by want or suspension of other faculties, which very suspension may be, indeed, the consequence of the morbid acuteness of the power that enables the walker in his sleep to bid defiance to those dangers which he must yield to if awake. This is in harmony with a very important law of sentient and intellectual being, viz., the obtuseness of one sense being the acuteness of another. It has been poetically, and perhaps not very unphysiologically conceived, that if all our senses were accumulated into one—that of hearing—the dropping of a pin on the floor might be heard as a thunder stroke, and the music of the spheres almost cease to be fable*.

But let it be recollected, that in all these mutations and variations, the heart and arteries may beat the same as is their wonted regularity; that the capillary vessels may be in their usual condition of quiescence; that no glandular phenomena of an extra kind may be manifest; and that the *alpha and omega* of the whole is nervous and sentient change.

What shall we say to the following narrative, which is, although somewhat long, presented to you in detail, on account of its demonstrating, in such an extraordinary manner, the great change that shall take place in the whole mental and physical condition, without any thing even at all specious on which to hang any explicatory assumption as to its actual essence; for "the small contracted pulse" was unquestionably here consecutive of nervous condition, and, indeed, would scarcely seem to demand any notice, seeing that it, with every thing else, vanished upon the dissolving of that charm—the taking off of that spell—which, however difficult to trace up to material essence, was evident enough in its adynamic or paralysing powers upon the frame.

"A student of Jena, about sixteen years of age, having a weak and irritable nervous

* It is a curious fact, in reference to somnambulism, that functions are performed without sight, which one should suppose vision absolutely necessary for. In the French Encyclopedia, it is stated that the Archbishop of Bordeaux was at college with a student who was in the practice of sleep-walking. On planting himself in the student's chamber, he observed the young man sit down to compose sermons, which he read page by page as he committed them to paper, if it can be called reading when no use is made of the eyes. In order to satisfy himself that the young divine made no use of his eyes, the archbishop held something under his chin, sufficient to intercept the view of the paper on which he wrote. The archbishop afterwards took away the paper on which he wrote, and pushed other papers under his hand. Whenever they were of unequal size, the student was aware of the change; but when they were equal, he wrote on, and made corrections on the spots corresponding with his own paper.

Was it not in this case an acuteness of feeling or touch which stood in the place of visual perception? Blind men, we know, will tell you the size and height of an apartment almost directly upon entering it.

frame, but in other respects healthy, left his apartment during twilight, and suddenly returned with a pale dismal countenance, assuring his companion that he was doomed to die in thirty-six hours, or at nine o'clock in the morning of the second day. This sudden change of a cheerful young mind naturally alarmed his friend; but no explanation was given of its cause. Every attempt at ridiculing this whimsical notion was fruitless; and he persisted in asserting that his death was certain and inevitable. A numerous circle of his fellow students soon assembled, with a view to dispel these gloomy ideas, and to convince him of his folly by arguments, satire, and mirth. He remained, however, unshaken in his strange conviction, being apparently inanimate in their company, and expressing no indignation at the frolics and witticisms applied to his peculiar situation. Nevertheless, it was conjectured that a calm repose during the night would produce a more favourable change in his fancy; but sleep was banished, and the approaching dissolution engrossed his attention during the nocturnal hours. Early next morning he sent for Professor Hufeland, who found him engaged in making arrangements for his burial, taking an affectionate leave of his friends, and on the point of concluding a letter to his father, in which he announced the fatal catastrophe that was speedily to happen. After examining the condition of his mind and body, the professor could not discover any remarkable deviation from his usual state of health, except a small contracted pulse, a pale countenance, dull or drowsy eyes, and cold extremities; these symptoms, however, sufficiently indicating a general spasmodic action of the nervous system, which also exerted its influence over the mental faculties. The most serious reasoning on the subject, and all the philosophical and medical eloquence of Dr. Hufeland, had not the desired effect; and though the student admitted there might not be any ostensible cause of death discoverable, yet this very circumstance was peculiar to his case; and such was his inexorable destiny, that he must die next morning without any visible morbid symptoms; in this dilemma, Dr. Hufeland proposed to treat him as a patient. Politeness induced the latter to accept of such offer; but he assured the physician that medicines would not operate. As no time was to be lost, there being only twenty-four hours left for his life, Dr. Hufeland deemed proper to direct such remedies as prove powerful excitants, in order to rouse the vital energy of his patient, and to relieve him from his captivated fancy. Hence he prescribed strong emetics and other medicines, and ordered blisters to be applied to both calves of his legs. Quietly submitting to the doctor's treatment, he observed, that his body being already half a corpse, all means of recovering it would be in vain. Indeed, Dr. Hufeland, on repeating his visit in the evening, was not a little surprised to learn that the emetic had but very little operated, and that the blisters had not even reddened the skin. The case became more serious, and the supposed victim of death began to triumph over the infidelity of the professor and his friends. Thus circumstanced, Dr. Hufeland perceived how deeply and destructively that mental spasm must have operated on the body, to produce a degree of insensibility, from which the worst consequences might be apprehended. All inquiries of this singular belief had hitherto been unsuccessful. Now only, he disclosed the secret to one of his intimate friends, namely, that on the preceding evening he met a figure in the passage, which nodded to him, and he heard a voice exclaiming, "The day after to-morrow, at nine o'clock in the morning, thou shalt die." He continued to settle his domestic affairs, made his will, minutely appointed his funeral, and even desired his friends to send for a clergyman, which request, however, was counteracted. Night appeared—and he began to compute the hours he had to live till the ominous next morning; his anxiety evidently increased with the striking of every clock within hearing. Dr. Hufeland was not without apprehension, when he recollected instances in which mere imagination had produced melancholy effects; but, as every thing depended upon procrastinating or retarding that hour in which the event was predicted, and on appeasing the tempest of a perturbed imagination, till reason had again obtained the ascendancy, he resolved upon the following expedient: having a complacent patient, who refused not to take the remedies prescribed for him (because he seemed conscious of the superior agency of his mind over that of his body), Dr. Hufeland had recourse to laudanum combined with the extract of henbane; twenty drops of the former and two grains of the latter were given to the youth, with such effect that he fell into a profound sleep, from which he did not awake till eleven o'clock on the next morning; thus the prognosticated fatal hour elapsed; and his friends, waiting to welcome the bashful patient, who had agreeably disappointed them, turned the whole affair into ridicule. The first question, however, after recovering from his artificial sleep, was "What is the hour of the morning?" On being informed that his presages had not been verified by experience, he assured the company that all these transactions appeared to him as a dream. After that time, he long enjoyed a good state of health, and was completely cured of a morbid imagination."

I may remark on this case incidentally, that it is fatal to the doctrine that a verification of supposed impressions is a proof that

such impressions might have any thing more belonging to them than a certain change in bodily states and feelings. That the spectral warning of Lord Lyttleton should have been fulfilled, is consistent enough with physiological principles, without the necessity of having recourse to any *Deus intersit* assumption; and, although this inference be thus merely made incidentally, the announcement of it may not be considered altogether unworthy of the occasion, seeing that metaphysical, and more especially, moral implications, ought ever to be regarded as deserving the minutest recognition of the philosophical physician.

What I principally and more immediately would notice, however, upon the case just read to you, is this, that a medical practitioner would be far under the mark of what ought to be required of him, if he should set about the investigation and treatment of such occurrences upon, if I may so say, merely medical principles; Dr. Hufeland, it will have been observed, was not so narrow and limited in his views. He felt the necessity of working a change in the percipient state; and, but for his skilful interference, the patient would most probably have fallen a sacrifice to the physical derangement, and consequently, mental hallucination, so curiously exhibited in this, although extraordinary, very instructive case.

When we next meet, I will certainly close these preliminary discourses.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE, SESSION 1836.

By DR. RYAN.

LECTURE XVII.

Hygiene of Woman, at the different periods of Life which influence Reproduction.

I HAVE endeavoured in the preceding account of the physiology peculiar to woman, to enumerate the principal facts relative to the commencement and termination of that portion of the female economy, which adapts the individual to the reproduction of the species; and I now propose to describe very briefly the hygiene proper at puberty and the other periods of female existence which influence generation.

In tracing the very imperfect account I have given of menstruation, I am induced to suppose, that ample evidence has been adduced to prove the importance of the female sex to the perpetuation, and physical and moral education of our species. Woman must be in good health, to perform the duties assigned her by nature and society.

The principles of hygiene are modified according to age and sex, though most of them equally apply to all individuals. Thus, the principal objects, whose use, when well or ill directed, contribute to the maintenance or alteration of health, are the air we respire, the clothing we wear, the aliments, both solid and liquid, we use, the secretions and excretions, the sleep and waking, the exercise and repose of the body, the intellectual faculties, and the moral affections.

As woman is more feeble, delicate, and sensitive than man, she is less capable of resisting the injurious effects of the atmosphere. She feels more vividly the action of this fluid when it is too hot or too cold, too dry, or too moist, too dense, or too pure. The sudden transition of the atmosphere from one extreme to the opposite, greatly inconveniences her, and renders her nervous and irritable. She is also more affected by air impregnated

with miasms and unpleasant odours than man. Epidemic diseases attack a greater proportion of women and delicate individuals than of the robust. Women ought to respire a free, pure, temperate, and uncontaminated air. They ought to avoid warm and close apartments, more especially when crowded. The sensibility of their nerves renders them most readily affected by unpleasant odours.

"What," says an able French writer, "are we to think of those who expose themselves to the heat of warming apparatuses, which relax the organs of generation and expose them to disgusting diseases*."

The errors in dress are also most reprehensible. It is now the fashion to see women almost naked, braving the inclemencies of the seasons, forgetful of the colds, catarrhs, inflammations of the lungs, fevers, and pulmonary consumption which destroy a vast number of those who set the physical laws of the universe at defiance. Corsets and tight lacings are now universally condemned by medical writers of all countries, as they compress the ribs and spine, the liver, spleen, stomach, and bowels, and induce a host of disorders of respiration, circulation, digestion, and numerous spinal and other deformities. It is scarcely necessary to remark, that this injurious custom ought to be avoided, as also sleeping in soft warm beds, which induce relaxation and indolence.

As woman makes less corporeal exertion than man, she requires less aliment and has less desire for food. She can rarely use the ordinary foods of the stronger sex, and has much less need of stimulating articles, either solid or fluid. She generally indulges too much in the use or rather abuse of tea, coffee, and other warm fluids, which produce relaxation and debility. Women require more repose than the other sex; but they generally sleep too long.

They are proverbially too sedentary, from the commencement of their most erroneous scholastic education, and during the remainder of life. They sadly neglect to take proper exercise, in consequence of the injurious custom in ordinary schools of confining them too long to study, and in painful attitudes. There is one great advantage in the discipline of modern infant schools, and that is, that exercises of various sorts, and many other amusements, are employed to relieve and exhilarate the mind, and render it open to receive both moral and physical education. Various gymnastics are now introduced into well-regulated schools, and exercise on foot, horseback, in carriages, dancing, bathing, natation, &c., are employed. These and many other exercises were practised by the Lacedemonian women, who enjoyed good health, and were the mothers of a most robust and vigorous people.

It is now agreed by all authors, that diseases of the spine, deformities of the limbs, neck, shoulders, hands, chest, &c., and innumerable disorders in the head, chest, and abdomen, are induced in women by tight lacing, painful attitudes in schools, want of proper exercise in the open air, and other violations of hygienic precepts.

One of the conditions most essential to health, is a proper state of the secretions and excretions. The regularity of the bowels, by a daily evacuation, is indispensable to the preservation of good health. Women are generally constipated, on account of being too sedentary, which blunts the sensibility of the lower intestine, and prevents that free action of the abdominal muscles in walking and other exercise, which causes pressure on the intestines, excites their peristaltic motion, and their evacuation.

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* Traité des Maladies des Femmes, &c. Par M. Carpuron. 1835.

In fine, the moral and intellectual states ought to be in unison with the organic. This is seldom the case in women, more especially when their constitutions are enfeebled and delicate. They feel the influence of the passions much more intensely than the opposite sex.

These hygienic rules ought to be strictly observed during menstruation, pregnancy, parturition, the puerperal state, and lactation; but there are exceptions relative to temperament, age, habit, climate, occupation, and education. The strong, plethoric, and robust require a different hygienic code from the weak, emaciated, and delicate. The cares relative to puberty, menstruation, conception, pregnancy, delivery, and suckling, are well known to physicians, but may be briefly alluded to at present.

Hygiene of Puberty.—Hygienic rules differ very little during infancy and childhood of both sexes, until the age of twelve or fourteen years. The physical education of this age will be described in the fourth section of this course of lectures, which will embrace it from birth to puberty. The mortality of this age is still immense in all countries, in consequence of the errors and prejudices relative to physical and moral education. Ample proofs of the truth of this assertion will be adduced hereafter.

Puberty requires new cares, the chief of which is to inform, with circumspection, young girls of the changes which are to occur at this age, so that they may be as little frightened or astonished as possible. The mind requires more care than ever. When the first menstrual eruptions are irregular, very little medicine is necessary. The individual should avoid at each period, exposure to cold, both general and partial humidity, every vivid emotion, and especially fear. The use of excitant aliments and drinks is generally injurious. The violation of these precepts frequently causes irregular or suppressed menstruation for one or many months, and numerous disorders, as hysteria, chorea, epilepsy, &c. Marriage is sometimes the only means of regulating the uterine function.

The cessation of menstruation exposes women to many disorders and diseases, more especially of the uterus, ovaries, and mammæ. Hence the necessity of regimen, exercise, &c., and sometimes of medication, as already mentioned.

Hygienic Cares relative to Conception.—The best means of obtaining vigorous offspring is not to allow their formation until parents are healthful and fully developed; which, in these temperate climates, is from the age of twenty-one years for males, and eighteen for females, and accordingly many even more advanced ages. But the rules in this respect must vary according to climate, constitution, health of individuals, &c. Warm countries accelerate, and cold retard this aptitude, as already mentioned.

The first fifteen days after menstruation appear to be the time in which the uterus and ovaries are most likely to conceive; and this period ought to be preferred for conception. It has been observed that population increases in seasons of plenty, public rejoicing, and amusements, and diminishes in time of famine and pestilence. Repose and tranquillity of mind, during the first hours and days after impregnation, will ensure a regular conception. If the passions of the mother can displace or deform the embryo, which is very doubtful, it ought to be particularly in the first days of its existence, when it is passing from the ovary into the tube, from which it may escape into the abdomen, and become extra-uterine, or be arrested in the ovary or tube, and form ovarian or tubal pregnancy; examples of which are on authentic record.

It is very generally maintained that the sex of the parent who is most vigorous, will be transmitted to the fœtus; and that males are begotten by the most vigorous and best nourished parents, and females by the

feeble and delicate. I have known numerous exceptions, and consider that future facts must confirm either of these theories. The notions of the ancients, and some of the moderns, that the influence of the right testicle and ovary form males, of the left females, is erroneous, as a man deprived of one testis, and a woman wanting one ovary, produce boys and girls like individuals possessing double organs.

Hygienic cares relative to Pregnancy.—A pregnant woman is more excitable and sensitive than at other periods of life, and ought, therefore, to avoid atmospheric variations, which produce pulmonary catarrh, pleurisy, and pneumonia. It has also been observed that cold baths often induce abortion. Every kind of compression of the abdomen and breasts ought to be avoided, as most injurious to the fœtus and mother. Nature points out this fact, as few women can bear tight lacing as pregnancy advances, and those who do, suffer from indigestion, pains in the back, loins, lower extremities, impeded respiration, cough, palpitation, fainting, headach, abortion, and many other painful complaints. The taste and appetite are often disordered by pregnancy, and the woman occasionally fancies improper aliment. The vulgar attach great importance to these *longings;* but they may be gratified when nothing is taken injurious to health. One of the first signs of pregnancy is nausea in the morning, and hence termed *morning sickness;* and this is often accompanied or succeeded by constipation. These and numerous other disorders will be fully treated of in their proper place.

It is a popular error to suppose that blood-letting is frequently required during pregnancy. The majority of women do well without it. Violent exercise of any kind, walking, riding, dancing, muscular fatigue, the abuse of sexual intercourse, strong passions, frights, physical shocks, &c., increase the disposition and tendency in pregnant women to fevers, inflammatory, and hæmorrhagic diseases, and especially to abortion. All these causes ought to be avoided, and with the firm belief, that the imagination of the mother cannot impress the object of her fright upon the infant in her womb. The fœtus is perfectly formed at the second month, and cannot be marked or directly injured by the maternal imagination. The mother cannot deform her own body by the power of the imagination. Marks and deformities arise from other causes, which will be described hereafter. Women are often dejected and fearful of the result of pregnancy. They ought to enjoy perfect tranquillity of mind, and avoid all depressing passions.

The hygienic cares relative to pregnancy, parturition, the puerperal state, and lactation or suckling, will be more fully described under their respective heads. The preceding brief sketch of a part of the hygiene of woman was introduced with a view of explaining the state of health and rules for preserving it, which are necessary for the proper performance of the reproductive function.

Ample evidence will be adduced hereafter to prove the importance of the preceding remarks, and to show the ignorance and prejudices of women, not only with regard to the conservation of their health at all periods of their existence, as well as that of their offspring. The errors in female and infantile hygiene materially diminish health, induce a variety of diseases and greatly increase the amount of mortality. They also induce infecundity, bad health during pregnancy, imperfect development of the fœtus, difficult and tedious parturitions, and numerous diseases of the puerperal and lactiferous conditions.

OBSERVATIONS

ON THE

MEDICAL AND SURGICAL AGENCY OF THE AIR-PUMP.

Read before the British Association, in 1835.

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Part I.—*The General and Local Effects of Rarefaction of the Air, or the Artificial Diminution of Atmospheric Pressure, as applicable to Morbid Conditions of the Human Body.*

Fishes, at a depth of about thirty-four feet of water, sustain a pressure of fifteen pounds upon every square inch, exclusive of the superincumbent atmosphere. This is the gravity of a column of water an inch square, by the above-mentioned height.

In like manner, all bodies placed in the ocean of atmospheric air around us, are pressed by a similar weight.

A column of air of ordinary density and temperature, from the level of the sea, to the highest range or top of the atmosphere, by an inch square, weighs fifteen pounds.

Now, as the human body, like all others, is sustaining the above weight on every square inch, it results that the superficies of a man being in general rather more than fifteen square feet, multiplied by fifteen pounds for every square inch, must support a weight not less than fifteen tons. This weight varies according to the temperature, density, and elevation, and produces corresponding changes on the secretions, circulation, and respiration, as well as upon the feelings and animal spirits. The natural exhalation by the skin is very much influenced by this elastic compression, over every pore.

But there is no animal or vital function so much affected by this agency as respiration. The chest or thorax resembles an empty bee-hive, capable of being enlarged at its sides by the action of muscles pulling out the elastic cartilages and ribs, and expanding its walls. At the base of this cone, a movable muscular partition, separating the chest from the abdomen, descends at every inspiration, *when not prevented by tight lacing or abuse of dress.* Expansion downwards enlarges the capacity of the chest much more than at its upper or narrow apex; whatever, therefore, withdraws some of the atmospheric compression from the exterior of the thorax or chest, facilitates the easier expansion of that cavity by diminishing the resistance from without.

In like manner, whatever lessens the pressure over the abdomen, renders it more easily propelled outwards, and downwards, and consequently permits a more free descent of the diaphragm at the base of the chest.

As the lungs are chiefly composed of a congeries of small air vessels, they expand exactly in proportion as the chest enlarges, and admit air in the ratio of their extension, during healthy inspiration.

When, by the natural contractile powers of the muscles and cartilages, all these parts are approximated, then the thorax is reduced in capacity, the lungs are compressed, and the air expired.

The external pressure of the atmosphere upon the sides of the thorax and abdomen, aids the diminution of the chest during expiration, by the compression of its walls.

But the contractile powers, inherent in all the parts, proceed without interruption, even when the circumambient air is *rarefied* to a considerable degree by art, and consequently its compressive power diminished. Therefore, removal of part of the gravity of the air may permit the easier expansion of the chest for inspiration, without preventing due contraction for expiration.

This provision of nature enables us to abstract a part of the surrounding weight of air, without risking derangement of the circulation, or rupturing the air-cells of the lungs, because they are sustained by the surrounding walls of the chest, as a bag of air would be supported, if inclosed in a common bellows, always in contact with, and compressed, or dilated by, the sides of the instrument.

When, a person inhales air, which is *naturally* pressed into the expanding lungs, by its own weight of *fifteen* pounds on the square inch, and when the atmosphere is artificially rarefied around the chest and abdomen, so as only to compress these parts with *fourteen* pounds on the same space, then there is gained in favour of easier inspiration, an advantage of one pound on each inch, or nearly half a ton on the circumference of the entire trunk.

The benefits of this easier acquisition of pulmonary capacity, are important, in all cases where there is debility or torpor of the respiratory nerves and muscles, and where the lungs require an additional supply of fresh air.

These and similar considerations induced me to withdraw a part of the atmospheric gravity by art, in cases where the powers of inspiration were diminished by disease, and where it was desirable to determine the circulating fluids more readily towards the exterior surface of the body.

So far back as 1812, I had proposed to my estimable friend, Dr. M'Donnell, of Belfast, to apply this principle towards accomplishing a great desideratum in practice, that is, to cause a person to perspire without sickening medicine or exercise. I may here also

mention that many of the propositions which I suggested, respecting the local and general agency of *artificial pressure*, as well as of *rarefaction of air*, on man and other animals, were afterwards confirmed by the experiments of Mr. Job Ryder, an eminent artist at Belfast.

Section I.—*Cutaneous Transpiration.*—The pores of the skin are capillary tubes, formed by processes of the cuticle, which run deep into the true skin. If cold air or damp beds induce diseases by suppressing the exhalation from these pores, derivation to the surface must be accounted a beneficial counter-indication. One principal object of encouraging that vital energy which promotes cutaneous transpiration, is, to diminish untoward temperature of the body, and to counterbalance internal determinations. Such refluxes are observed even from common perspirations, which lessen the secretion from the kidnies, nearly in proportion to the augmentation of cuticular exhalation. In inflammations, the abstraction of heat from a limb or part of the surface, by pumping off the surrounding hot air, drawing away the caloric of the patient, and admitting cold fresh air, is a very grateful and reviving process. I have frequently proved that general suction carries off a great quantity of carbon and hydrogen from the circulating fluid*.

Common diaphoretics seem to act in two ways, *first*, by a general stimulus actively exciting propulsion towards the minute capillaries of the surface; *secondly*, as nauseating medicines, operating by the nerves, through sympathy with the stomach, and consequent relaxation of the cutaneous vessels.

But, in many diseases there is already high excitement of the general circulation, and yet the skin remains dry; in these cases it is necessary to remedy the diminished energy of the exhalents, and the impeded power of the secreting capillaries, when it would be deleterious to attempt inducing perspiration, by heating or stimulating diaphoretics.

Many other circumstances render it a matter of great delicacy to discriminate, not only which to select, the stimulating, or the nauseating sudorifics, and again, which individual article of either class, organic, or inorganic, to adminster.

If, therefore, we can induce perspiration, by *suction* towards the extreme vessels, we avoid a great degree of perplexity and risk.

The diseases in which, *à priori*, artificial determination of blood to the surface would be expected to give relief, and probably dispose to a more speedy cure, are, *first*, all simple fevers, especially at the commencement.

Whether we attribute the proximate cause of fever to the retirement of the blood, from the surface to the interior, as evinced by the shiverings, coldness, weakness, and atony, with which the disease begins; or if we suppose, that the phenomena of fever consist in a salutary effort of nature to throw off some noxious matter (*probably a struggle to restore the balance of the circulation*); if with Boerhaave, we believe in a lentor or viscidity of the blood; if with Hoffman, we credit the doctrine of *diminished energy of the nervous system;* or if with Cullen, we combine with this diminished energy the theory of early spasm of the *extreme vessels*, as a "*proximate cause;*" or if, with Dr. Wilson Philip, we attribute the phenomena to "*debility of the capillaries;*" in either of these cases, or in all of them, nature would point out the propriety of drawing the circulating fluids to the surface, and filling the ramifications of the vessels during the primary or colder stages, when their state of collapse cannot be denied. Indeed, the promotion of determination to the surface was the indication always aimed at by the administration of diluents and sudorifics, and by the artificial means of emptying the internal and over-charged arterial trunks, by venesection and other evacuations.

Second—*Intermittents and Remittents.*

If the doctrine now set forth be correct, the incipient cold stage of intermittents presents desirable opportunities of giving the new means of drawing the blood to the surface, fair and decisive trials.

Third—*The order exanthemata or eruptive diseases.*

It is reasonable to conceive, that if we possess the power to draw out the blood towards the skin, we favour the full and free appearance of eruptions, and diminish the chance of those pulmonary and other congestions, which often succeed measles, small-pox, scarlatina, and various eruptive fevers.

From the intimate connexion of the exanthemata, with disorders of the mucous membranes, it is also probable, that these internal surfaces might in many acute disorders, be unloaded and relieved by producing a general rash and artificial fulness of the cutaneous vessels, and pulpy terminations of the *exterior branches*. Hence probably, the relief obtained in the ill defined and ill-understood practice of counter-irritation.

In cases of retrocession of eruptions, whether those arising from specific contagion or otherwise, the new plan presents the most reasonable means of eliciting them again to the external tissues. There is every reason to expect, that the power of altering the condition of the skin and cuticle in so effectual and speedy a manner, will present great advantages in treating the *minor exanthemata*, such as *Urticaria*, *Herpes*, *Lichen*, and all the shades and colours of cutaneous disorders depicted by Willan and Bateman.

* See my paper in the London Medical and Surgical Journal, 7th July, 1832.

Section II.—*Internal Inflammations, and Visceral Congestions.*—Inflammation of the brain, lungs, pleura, heart, stomach, liver, or any other internal organ, can only be properly treated by abundant and unsparing abstraction of blood. Will not its instantaneous diversion to remote and healthy parts, relieve those which are too much distended, when the process is employed in conjunction with the ordinary means already in use?

I mentioned in another place* that after full and free bleeding, it is often a question whether more blood can be lost with safety; here, its abstraction from the *diseased viscus*, and its diffusion among the sound vessels of the skin, unloads the *part affected*, without dangerously debilitating the constitution. We draw off the blood from the oppressed organ, but we do not risk the patient's life by too much waste of that fluid which sustains it.

Simple congestive apoplexy must be relieved by drawing the blood to the limbs and surface. In many cases venesection does not succeed in abstracting a flow of blood sufficiently sudden, but, this mode of determining it to the remote vessels might very much assist the other requisite measures.

In the early stages of consumption, when there is such weakness as forbids depletion, and yet, sub-acute activity of the pulmonary tissues demanding it, then unloading the distended vessels, without producing debility of the whole system, is a desideratum anxiously wished for since the earliest dawn of medicine.

To all who know the influence of change of air, and the exhilaration produced by a lighter atmosphere, any means capable of yielding such an advantage, in low districts, or smoky towns, must be evident.

If this rarefying procedure can elevate the ribs, expand the chest, lighten the external atmospheric pressure, and augment the quantity of the air inhaled, we obtain a very desirable agent, which may supersede the use of many active remedies.

In certain cases of asthma, and other pectoral diseases, this principle should become of great value. In the treatment of metastasis of gout and rheumatism, a ready mode of producing revulsion is thus presented, and we may reasonably expect that gout may be frequently re-translated from the heart or stomach to the feet.

Section III.—*Derivation, and Revulsion.*—The change of the seat of irritation, or excitement, the diminution or removal of the morbid condition, and its derivation elsewhere, are the indications of treatment pointed out by the example of nature, and the precepts of art in almost every case, where the phenomena depend on passive congestion or active repletion. A diarrhœa, or eruption on the skin, will effect a natural revulsion, and sometimes carry off inflammation of the lungs. We even attempt a similar derivation by art, and endeavour to translate the same disease by evacuations and blisters.

The efforts of nature in translating disordered conditions of parts, sometimes succeeds in effecting a removal of the primary disease, but oftener, as Broussais demonstrated, the sympathetic predominates over the original irritation, and then the secondary may surpass in violence the primary affection. Observe the incessant translations of inflammations occurring between the skin and its great continuation, the mucous linings; not only do conversions of complaints take place between these tissues, but also between all analogous membranes; thus, who has not seen the inflammation of the *synovial*, suddenly translated to the *serous tunics*, acute inflammations of the knee-joint quickly subside, and instantly the pleura, pericardium, peritoneum, or arachnoid membranes, become inflamed? A metastasis from diarrhœa to acute bronchitis, is daily met with in practice. Again, surfaces and organs, not physiologically uniform, partake of the operations of reciprocal translations; thus of catarrh into hemiplegia; of suppressed perspiration into ascites, of exanthematous desquamations into hemorrhage from the kidnies, of swellings of the legs to mania, or of gout to inflammations of the bowels or windpipe,

There is thus a play of natural revulsions from the *interior* to the *surface*, and vice versâ; and again, from one organ or viscus to another.

With respect to artificial derivations, we tacitly or avowedly endeavour to imitate the conversions effected by nature. We attempt to direct revulsions from the centre to the circumference, by using diaphoretics diluents, warm-baths, and frictions.

Many other artificial means are employed to effect revulsion, but as all these act by producing more or less activity of the arteries, their use is objectionable, unless preceded by the requisite depletion. Who has not seen intense excitement succeeding the injudicious use of cantharides, mustard, moxa, pustulation, and ammonia, when applied over, or near a part already in a super-excited condition?

On the contrary, did we possess an external revulsive agent, *passively derivative*, not *actively stimulating*, such agent would be safe, not only in cases where the powers of life are low, the inflammation mitigated, and the irritation chronic, but also salutary, even when fever is high, circulation active, and sympathetic irritation considerable.

This is the great line of distinction between derivation of the fluids to the surface

* London Medical and Surgical Journal, July, 1832.

by SUCTION, and its propulsion by the usual medicinal revulsives; that the *former* method acts in making the capillaries *passive* conductors of increased circulation, but the *latter* operate by rendering the vessels more *active*, aggravating acute cases and adding to their over-excitement. The one method *leads* determination, the other *drives* it.

In dealing with the usual internal revulsive remedies, or the external stimulating applications, there is the nicest discrimination required, to ascertain whether the inflammation be sufficiently subdued to admit of the use of excitants over the affected parts, or whether they are not demanded by weakness of capillary circulation, when a condition of the ultimate ramifications exists approaching to debility. This line of demarcation is difficult to distinguish, where the promotion of revulsions would be hurtful, by exciting too much sympathetic irritation, or beneficial, by augmenting feeble vital action.

The derivation of fluids by expanding the vessels from *without*, is not liable to place the physician in the above dilemma; he can by this means solicit the circulation to the *branches*, and avoid exciting increased action in the *trunks*.

Repleting the vessels of an exterior part which has lost a portion of its vitality in consequence of the high irritation of an internal organ, is a great desideratum in practice, for it frequently happens, in such cases, that blisters will not vesicate until a nearer balance of the circulation is restored, and hence, in many instances, incalculable advantage is derived from dry-cupping over such a locality, rendering the capillaries of the skin turgid, and the subsequent vesication easily produced.

I have frequently induced increased action in a semi-torpid surface, with a corresponding subsidence of the primary inflammation, merely by drawing the blood into the skin, and maintaining that determination until the interior irritation had abated.

There is no organ so much injured as the brain, by blisters applied over it, when the inflammation is acute, and not sufficiently subdued, by vigorous antiphlogistic treatment; on the other hand, when congestion of the brain depends on atony, then powerful revulsives over the scalp, act directly through the medium of the nerves, as well as of the anastomosing and perforating vessels, in determining a new condition calculated to unload them.

In either of these cases, the abstraction of the blood to the extremities, diminishes the congestion, whether it arise from active surcharge of the tissues, by excited circulation, or from passive engorgement, depending on lentor or diminished energy.

It is for these reasons that translations of the circulating fluids to more distant parts is an important desideratum in cerebral diseases, whether functional or organic. I have observed the best results from this practice in cases of paralysis, depending on surcharge of the vessels of the brain or spinal marrow, and where coma, stupor, embarrassment of speech, distorted vision, intolerance of light or sound, and loss of memory, arose from the same causes.

SECTION IV.—*Diseases of the Organs of Respiration.*—Similar reasoning will nearly apply to many disorders of the respiratory organs. Revulsive means, of one kind or other, have ever been the principal treatment adopted in relieving the substance of the lungs, the linings of the air tubes, or the serous membranes around those organs. When bleeding has reduced high inflammation, blisters and derivatives have rendered important service. The free communication between the pleura and surface of the thorax, renders suction an efficient medium of translation to the surface. My learned and esteemed friend, Dr. Stokes, jun. assures me, that in numerous cases, where the congestion of the lungs was so great as to yield a dull sound on percussion, as if hepatized, the application of dry cupping, over the part, soon relieved the vessels, and quickly restored the natural resonance. If a partial use of this principle produces such beneficial effects, how much more may we expect from its extensive application?

The influence of external agents is proved, by observing the map which a blister on the chest imprints on the lung under it. A round, square, or oval blister, leaves its shape and outline accurately delineated on the diseased lung, as is observed at post mortem examinations.

Consumption, or phthisis, consists in the formation and subsequent breaking down of tubercles in the lungs. No person will venture to affirm, that determination to distant parts will remove tubercular disorder, once fairly established.

But if we cannot remove such consequences, may we not sometimes prevent their causes? Persons predisposed to that condition, which Dr. Clarke calls *tubercular cachexia*, have that hereditary, or other condition developed, by suppressed perspiration from damp beds, wet clothes, night air, sudden reductions of temperature, and neglected colds.

When patients have been exposed to the operation of such causes, and before tubercular diseases are induced, then is the time to aim at *prevention*, by restoring the cutaneous functions to their healthy condition.

This is particularly desirable in strumous habits, where there is already a disposition to a congestive state of the abdominal circulation, which, when neglected, superinduces that condition of the lungs, which Dr. Wilson Philip calls dyspeptic phthisis.

It is in the premonitory stages, that the peripheric determination from the centre, promises to restore that balance, which we

formerly endeavoured to promote, by the operation of emetics, sudorifics, warm baths, and other debilitating means. If the condition, favourable to the evolution of tubercles, be truly one of weakness, then active evacuations must surely be injurious.

When we reflect how useless have been all the means employed for the discussion of tubercles, a proposal of this nature may be the more entitled to trial for their *prevention*. This inducement is strengthened by the circumstance, that in all probability the state of the skin in early stages, is the most essential consideration to direct our progress.

Section v.—*On the Balance of the Venous and Arterial Circulation, in the Digestive Organs.*—As there is no class of membranes so easily and frequently affected by the influence of the cuticular functions, as those of the stomach and bowels, so there are no disorders in which the relative agency of the skin and internal tissues, requires to be so accurately discriminated. When the determination to the cutaneous surface is obstructed by cold, or damp, and revulsion is directed upon the organs of digestion, there is first set up, *active* congestion, arising from increased determination, and plethora, and to this succeeds *passive* congestion, depending upon the vessels having been over distended, and consequently debilitated.

The ordinary treatment of these conditions of parts, should widely differ; and yet there is no series of diseases in which errors are of such frequent occurrence, as in those of *active* and *passive* congestion in the minute capillaries of the alimentary canal. It would be very desirable if any mode could be rendered practicable for directing the circulation from the *gorged interior*, to the comparatively *empty exterior tunics*, and to effect this object *passively*, by *suction*, towards the vessels of the surface, which do not possess sufficient energy themselves to restore the balance of the circulation. It would be a great advantage if we were enabled to treat active and passive congestion, by an adaptation of the same principle. When we remember the ease afforded from severe pain in the inflamed mucous membrane of the stomach, by leeching over it, we may appreciate the advantages of an *exterior agent* of more extensive influence.

Section vi.—*Nervous Diseases.*—This division of disorders may be less under the influence of the agent now treated of, but I have collected such proofs demonstrating that so many of those complaints called *nervous*, depend on various congestions, chronic enlargements, fullness, and sometimes sub-inflammatory states of parts of the brain, spinal marrow, or their investments, as to infer, that any agent capable of drawing away the fluids from those over distended tissues, without at the same time irritating or enfeebling the patient, will be found highly important in the treatment of such numerous varieties of diseases.

Every person is aware, that in spinal irritation, and sometimes cerebral vascularity, will be found to originate numerous instances of paralytic affections, certain kinds of ailments of the eye, ear, and other organs of sense, epilepsy, spasmodic affections, mania, chorea, and several of the neuralgia, such as tic douloureux, with chronic pains, and various disorders of the viscera.

Many other observations present themselves upon the subject of general rarefaction of the air around the whole body, for which I beg leave to refer to my original paper in the London Medical and Surgical Journal of July, 1832. and again to the Lancet, of 28th March, 1835.

The cases there recorded by the assistants of the talented Doctor Hart, all confirm in *practice* the *theory* of the procedure: copious perspiration was in every instance easily and speedily produced.

With respect to the local agency of rarefaction, that was in some measure attempted by trials of apparatus for steaming a limb or limbs, after drawing off the air by a pump, but then as the vapour of the hot water filled up the rarefied space around the part affected, steam, *not rarefaction*, was the object of the contriver.

But my object is simply to diminish atmospheric pressure, and consequently to fill up the vessels of the part, to draw engorgements of the head or body, to one or more of the limbs, or in cases of partial paralysis, to elicit heat and active circulation to the part, by charging the local vessels with additional blood, and consequently restoring their tone. To save time I shall only allude to two cases of this partial dry-cupping.

Case I.—By C. Clarke. June 24th, 1835, James Macartney, aged 44, a brewer, complains that he has suffered, for seven months, from a pain over the right side of his head, extending to the ear and eye; had momentary tremors of the head, face, and upper extremity. The pain is constant, and so excessive as occasionally to make him start out of his bed; it is increased by stooping.

His bowels are generally torpid; appetite bad; great depression of mind; languor and lassitude.

His skin is harsh and dry, and he complains of a stiffness in the knees.

He has taken Plummer's Pill, mercurials, antimonials, and various opening medicines; had Tart. Emetic plaster to the neck, blisters, leeches, &c. without advantage.

June 25th, His leg and thigh, up to the middle third, were inclosed in the exhausting air-bath, an hour and a half, during which time his limb attained considerable increase of size, it feels hot and itchy, there is a great determination of blood to the extremity, and the most minute capillaries

seem injected; the internal surface of the bath is bedewed with condensed perspiration.

On the bath being removed, and the limb measured, it was found to be enlarged, (when compared with the other,) three inches in circumference, above the knee; one inch and a half, at the calf; and nearly one inch, above the ancle. During all the time the mercury was sustained five inches high, showing a rarefaction of two pounds and a half, on every square inch.

A considerable time after removal, the part retained a genial warmth, and remained red on the surface.

26th. Pain of the head diminished, the leg put into the bath has felt much warmer; since the operation, prickling, very itchy, and much more pliable and active.

The bath is composed of tinned iron, shaped like a boot, closed round the thigh by a collar of oiled silk.

Case II.—June 1st, 1835. William Campbell, Hammond Lane, house-painter, during seven years, has complained of pains and weakness of the arms; the right arm has been much colder than the left, and the wrist very weak, incapacitating him from using the joint at his work; fingers sometimes cramped: has a wife and four children to support, but was obliged to leave his work: he has frequent cold shiverings; cannot lift a pin, his fingers being torpid and paralyzed: his ancles sometimes swell, and then pains succeed in all the other joints; sleeps well, appetite good.

June 28th. The right arm was introduced into the tin case, and suction effected, the mercury was maintained at six inches high, for an hour and a half. At first, the fingers became gradually hot, then the wrist, and lastly the elbow; when the exhaustion had continued half an hour, he felt the perspiration copious, the fingers as if pulled out, and expanded, and the hand enlarged so as to fill the case. He could not well bear the exhaustion, if more rarefied than seven or eight inches, that is, a diminution of about a quarter of the atmosphere.

My respected colleague, Doctor Smith, saw this man after the operation, the arm and hand were tumid, red, warm, and wet with perspiration: the glow of heat continued a long time after.

July 4th. This man called on me to-day, his arm remains warm, and he reports himself well, and able to work.

It is my earnest wish that the distinction between the influence of *rarefaction*, and that of *condensation* should be duly observed.

This is, in my opinion, their great distinguishing outline: when I desire to restore heat, energy, and re-action to a part of the body, or to one of the limbs, to elicit the vital fluids from one place to another, and maintain the circulation, until nervous action is established, or when I wish to draw out ruptures, or hernial tumours, when strangulated in the canal, or other outlets, then I resort to the rarefaction of the air from the surfaces alluded to.

On the contrary, when I wish to dissipate heat or redness, to diminish tumours or swellings, empty the vascular branches, or tissues, of superabundant blood, or to return protrusions into the pelvis or abdomen, then I select the equable and powerful agent of atmospheric pressure.

It is thus that both agencies may be required in two different stages of the same complaint. Early in 1834, I explained to my respected friends, Doctors Harvey, Hart, and Ireland, and to Messrs. Colles, M'Donnell, and Cusack, of Dublin, this distinguishing feature in the reduction of hernial tumours; I pointed out to them, and many others, that *rarefaction* would draw out fresh portions of the rupture, act upon the contents of the intestine, and sometimes render strangulated hernia reducible: whilst on the other hand, reversing the principle, and employing *compression* of air, would return the protrusions, or at least send back their surcharge of circulating fluids, and consequently diminish tenderness and inflammation.

Burns and Scalds.

Rarefaction of air, from a severely burned limb, brings a supply of blood and nervous energy, when the circulation becomes languid, and sphacelation is threatened.

In such cases, replenishing the part with blood, until reaction is restored, prevents or retards the progress of gangrene.

The same reasoning will apply to other interruptions of the capillary circulation in the cellular membrane or skin, whether occasioned by disease or accident.

But after the chilly stage is removed, and heat restored, the rarefaction must be discontinued, lest the reaction should set in too violently; the reversal of the above plan will then be necessary, to retard undue influx of blood, prevent inflammation, and abate the violence of pain.

(*To be continued.*)

REMARKS ON QUACKERY.

The following remarks will be perused with satisfaction by every educated practitioner; and they emanate from a writer at Bath.

"The instinctive love of the marvellous and unknown, implanted in the human breast for the wisest purposes, when unenlightened by knowledge and reflection, has in a variety of forms, been made the engine of tyranny and deception by the unprincipled and designing. In proportion as our self-interest is addressed, as the amount of the promised benefit is great, and our means of correct information deficient, our judgment obscured, and our moral free agency restricted. We become the dupe

of the man who is sufficiently acute to detect our weakness, and base enough to make it the instrument for promoting his sordid selfish aggrandizement. The records of demonology and witchcraft, of religious fanaticism, teem with examples of this description; but while, thanks be to God, in this favoured land their number is daily diminishing before the irresistible advance of a higher intelligence and morality, there is still a system vigorously at work, similar in its tendency, demoralizing in its principles, and diffusing unchecked its deadly venom through the life-blood of the population; that system is *Quackery*.

"The innate principle of self-preservation is strongly entwined with the human heart, and every thing addressed to it is eagerly seized, and too often swallowed, without any other consideration than the strength of its pretensions. We naturally wish that any means should be true which claim the power of restoring our fading health, rebuilding our shattered constitutions, or prolonging our existence; and so powerfully does the wish overrule the reasoning faculties of a weakened and desponding mind, that the man who can make sufficient compromise of principle and truth to adapt his promises of relief to the extent of our wishes, is sure to obtain a ready hearing, and to be credited with an utter disregard of all those principles of common sense, which are by our mental constitution forced into practice upon other and less prejudiced occasions. It is therefore to our love of life that quackery is immediately addressed, and by pandering with unprincipled subserviency to this universal and strongly implanted principle, it blinds our reason by the very extravagance of its allurements, and designedly sacrifices our bodily interests on the shrine of an ignominious cupidity.

"But leaving general assertions, let us calmly examine the real nature of the claims which empiricism holds forth to our confidence and encouragement, let us contemplate its moral and intellectual bearings, the sources of its success, and the best means for its prevention; and then individually determine how far it is consistent to be either passive spectators, or direct promoters, of its wide spreading and devastating influence.

"In the first place, *quackery is irrational*. The most superficial observer must admit, that in proportion as men's minds are directed to particular pursuits, an increase of knowledge is the result, as well as additional success and facility in its application. In fact, the whole of our social arrangements are based upon this self-evident principle; it is the cause of that subdivision of labour upon which our national and commercial celebrity depend; it is acted upon in every department of life; and is regarded as such a self-evident proposition, that any attempt to argue the question would involve a doubt of our sanity. While accident has sometimes stumbled upon discovery, it cannot be denied that we are ultimately to depend on an increase of our knowledge in every particular pursuit from those most devoted to its investigation; and in proportion to the difficulties to be conquered, is the necessity for special application.

"The structure of the human frame, the functions of its various and complicated organs in a state of health and disease, the discovery of remedies and their *proper application* for the prevention and relief of the latter, have for ages engaged the highest efforts of intelligence and research; and if the result has not hitherto been all we could wish, yet how vast has been the amount of suffering relieved by an enlightened use of the means which science has already placed at our disposal! But were one thousandth part of the pretensions realized to which quackery lays claim, disease would be robbed of its victims; the labours of past generations would not only be superfluous, but injurious; the votaries of medical science would be mere spectators of their own failures; the reign of ignorance would be a consummation devoutly to be wished for, as with its prevalence would disappear the long list of human infirmities. From whom ought 'universal medicines,' 'elixirs of long life,' and other equally specious candidates for universal patronage, to emanate, if not from those best acquainted with the structure and diseases of our frame? And yet where is the instance of an enlightened and conscientious mind pretending to such discoveries? Have medical men united in one common imposture to conceal from their fellow man results, which for ages it has been the highest ambition of their science to attain? The supposition is too monstrous for even the most credulous, and yet such *must* be the case, if quackery is not false to its very core.

"The bare idea of *one* remedy curing *all* diseases, is a libel upon common sense, and would be considered so by all, did not our wishes and prejudices so strongly interfere.

"What would be thought of the individual who advertised that he had discovered a something, which, if put into a watch, would rectify all imaginary deficiencies; mend mainsprings, supply broken cogs, lost axles, renew worn out wheels, and make the hands, on whatever cause their irregularity might depend, keep proper time! He would, I believe, gain little more than ridicule for his pretended discovery, though, in the abstract, all would agree that such a remedy *were it possible*, would be very desirable. We should naturally remark, that what would supply one deficiency, could not

rectify another of a totally opposite description, and the suggestions of common sense would protect our watches from becoming the victims of either a knave or a fool. But what more manifest absurdity, we would ask, is there in the pretensions of the spurious watchmaker than in those to which we have alluded? In the one case, the attempt has outraged the rational faculties with which Providence has mercifully provided us; while in the other, we become unthinkingly its victim, because it assails our wishes, and is fraught with a hope, the realization of which is negatived on the very threshold of a rational reflection.

"It cannot be too strongly impressed on the public mind, that the success and value of medicine as an art is wholly depending on the proper appreciation of the conditions under which remedies are administered, and not on the possession of universal panaceas to be indiscriminately applied. Supposing, for the sake of argument, that the human frame was only liable to *one disease;* yet so great are the differences of constitution, so powerful the influence of external and accidental circumstances, so necessary the special consideration of each individual case, that the most opposite methods of cure must occasionally be adopted; and the skill of the physician is evidenced, not by the number of his remedies, but by their judicious selection and application.

"There is not a single drug known, of any active properties, which can be safely resorted to in defiance of these considerations; while on the other hand, there is perhaps no remedy, which, however blindly swallowed, will not in some instance or other be productive of advantage. This last reflection will explain many of the vaunted triumphs of empiricism. Alas! its failures are comparatively unheard of: its fatality too often only known to its victim! —Quackery is therefore irrational and dangerous."

ON THE

ADVANTAGE AND APPLICABILITY

OF THE

PRONE POSITION,

IN VARIOUS DISEASES AND INJURIES OF THE HUMAN FRAME, ESPECIALLY IN

DISEASES AND INJURIES OF THE SPINE, AND IN MALFORMATIONS OF THE CHEST.

Read at the Westminster Medical Society, May 21, 1836,

By MR. VERRAL.

It is now six years since I received a medal from the Society of Arts, Manufactures, and Commerce, for the invention of a prone couch; yet although in the Transactions of that Society the claims of that invention to the attention of the profession were fully developed, I have reason to believe that from that day to this the model deposited in the rooms at the Adelphi has never been practically referred to, nor has the position, that I know of, ever been adopted by any individual but myself. I know not that I ought exactly to regret this, seeing that I have in the mean time had opportunities of putting the PRONE POSITION to further proof, and that the success of my experiments has led me to devote myself very especially to the management of those diseases in which that position has been proved, or is likely to be proved, to be so decidedly beneficial. Armed, therefore, with six years of additional experience, during which several important cases have presented themselves to my view, I have resolved, through the medium of this respectable Society, of which I esteem it an honour to be a member, to call the attention of the profession to a position which, more than any other, will, I think, contribute to the relief and cure of some of the most terrible diseases, accidents, and deformities that flesh is heir to. When I first invented the simple board which I shall presently have the pleasure of shewing you, I little expected to produce the important results which I have now to communicate; and, that these results have been realized, although based upon the production of that simple board, I no longer am content to be considered as the mere inventor of a couch, it being my prouder boast that I have been the discoverer of a new and most advantageous position, one which I believe to have been hitherto untried and unthought of, and one which I think will ultimately, in a great variety of cases, supersede its opposite, the supine position, in which patients have hitherto most usually been laid.

As the case which first led me to the invention of the couch will exemplify almost all the uses and advantages of it, I shall beg to call your attention to that case before I proceed to show you the rude and simple apparatus which I devised for its relief.

A young gentleman, aged 16, had for two years been afflicted with diseased spine. The complaint had come upon him during a tour in Scotland, and on his return from thence, he made a stay of some months at Hinchley, that he might be under the care of Mr. Cheshire. As he was becoming worse, he at length proceeded to London, and his friends were advised by the medical gentlemen who were there consulted, to take him to the sea side. Lodgings were taken at Seaford, where I then resided, and in November, 1825, he was accidentally placed under my care, in consequence of his having been attacked with scarlet fever. He had previously been attended occasionally by a

medical friend of the family, residing some distance off; but having been thus called upon, I was of course made acquainted with the disease under which he had so long been suffering. After his recovery from scarlet fever, I therefore frequently saw him, and so great a sufferer it has rarely been my lot to behold. He had long had an abscess discharging most profusely in the right groin. There was disease and a very large posterior curvature of the lumbar vertebræ, with which the abscess no doubt communicated. He was exceedingly emaciated, and the skin so readily gave way that every part upon which he had pressed but for a few hours had become excoriated. He had a large sore on the edge of the sacrum, another on the point of the protruded vertebræ, and another on each hip. In bed, therefore, whether lying supine or on the sides, he suffered extreme torture, alleviated but for a very few hours by the administration of the most powerful opiates. From his bed, then, he was obliged to rise, and in doing that, he daily suffered an hour of agony, which, although he bore pain with much fortitude, forced tears in torrents from his eyes. When up, he sat in a chair contrived by Mr. Cheshire, with high arms and with a strap supported by an arch of steel that came forward over his head, so that the weight of the upper part of the body might be taken off from the diseased portion of the spine. But his elbows had been wrung by leaning on the arms of the chair, and his chin was completely excoriated by the frequent use of the strap. For ease, therefore, he had recourse to his crutches, upon which he sometimes stood for two or three hours at a time; but at last excoriation took place in each axilla, and thus every change of position afforded him but a change of torment. Having one day witnessed his sufferings, I went away, considering whether it might not be possible to place him in some other position, which would afford him sometimes an hour or two of respite from the terrible tortures which, in addition to the disease, were evidently hurrying him to the grave. I thought of the haymakers and harvesters, and the shepherds, whom I had often seen sleeping on their faces; and although Horace, I believe, tells us that "Malus pastor dormit supinus," I concluded that, as it is *Malus* pastor who so sleeps, I would even venture to send my young friend to sleep in the PRONE POSITION. By way of trial I threw myself at length on the sofa, but I found that a regular platform gave an uneasy stretching to the body, which I felt assured he would not be able to bear. After many trials, I found that a slight angle in the platform, corresponding with the bend of the hips, rendered the position extremely easy. Upon this hint I acted, and having also contrived an easy mode of laying the patient down upon the board, I had it one day taken to the house, and he was immediately placed upon it. In three minutes, he was asleep, and continued so for three hours. When he awoke, seeing me sitting beside him, he exclaimed that he had to thank me for the sweetest sleep which he had enjoyed for many months. That night and the two or three following ones he was removed from the couch to his bed, but after that he resolved to try a night upon the couch, and succeeded so well that from that day, which was the 22nd of December, until he died, on the 28th of the following August, he never but once left it, excepting for the purpose of that daily change which the great discharge of the abscess rendered imperatively necessary. On this account it was that I was obliged to contrive such additions to the original platform as were required to make it a permanent instead of an occasional place of rest, and at the same time to enable him to be moved off and on with facility. This was effected, as I shall shew you, in so simple and yet in so effectual a manner, that, whether laying on the couch or in being raised so that he might be changed, and the parts cleansed and dressed, he never complained of the slightest degree of pain. He rested without an opiate, amused himself during the day in reading, writing, and drawing, all which he could accomplish without the slightest movement of the body; and, to add to our surprise, although in no other position was he able to lie, even for a few hours, without wringing, he lay in this manner for more than eight months, and had not even in any part the slightest reddening or excoriation. He recruited so much at first, in consequence of the ease and rest he was experiencing, that for a short time we had almost a hope of his ultimate recovery. Fresh abscesses, however, formed; openings took place in the other groin, and in the thighs, and a violent hæmorrhage at length coming on, he expired, as he had prayed to do, on his "dear couch," as he called it, without feeling a pang, and without uttering a groan. In this and in one other case, we suffered some inconvenience from an œdematous swelling of the legs, but it never became of any serious importance. It was, however, the cause of his trying a change from the couch to his bed on one night, which was, as I stated, the only time that he attempted that change after he had made the couch a permanent resting place. This was done at the request of the medical friend I have alluded to, but the experiment caused him so much pain, and before I saw him, which was not till the next day at noon, had again so much excoriated the angle of the distorted spine, that it was never again repeated. During the last week or two he had become so weak as scarcely to bear the upright position, in which he was placed for a few minutes, to be washed and changed, and I

was thinking, at the time of his death, of contriving to fix on the couch a corresponding board, which being brought over his back, he might have been rolled over and back again without the slightest personal exertion. This, I think, might be easily effected, but I have never since had a case that has required it.

On this case I have few observations to make. By no mode of treatment do I believe it capable of being cured, at the period when it fell under my observation. But I also believe that no position in which the patient could have been placed, would have afforded him so good a chance of recovery; and if the disease had not already committed such dreadful ravages, if the bones had not become altogether carious, and if the constitution had not been worn down by long suffering, and profuse discharge, then do I almost believe that the perfect ease which the couch afforded him, the free exit that it gave to the pus, and the great freedom from motion, which was so long allowed to the diseased parts, would have insured him an ultimate cure. From the observations which I made on the above case, I may with confidence assert, that in all cases of psoas abscess, in which the matter is pointing, or has made its way anteriorly, the rone position is the one in which the patient ought to be laid. Indeed, in the early stage of that disease, while it may be hoped that active remedial measures, such as leeches, issues, blisters, friction, &c., might be the means of preventing the formation of matter, it is clear that in no other position can the patient be so advantageously placed, as well on account of the perfect quiet that it affords, as of the extraordinary facility which it gives for the application of the various remedies. In the incipient stage of disease of the vertebral column, the prone position is still more imperatively demanded; and in that case, as well as in inflammation, or injuries of the spinal marrow, or of its investing membranes, the long continued and most perfect quietude in which the patient may remain, is assuredly a most important recommendation. Where there is no purulent discharge, to render a change of linen frequently necessary, there need be no limit to that state of quiet, but what the commonest cleanliness would impose, as the food is taken, the evacuations passed, and all the offices of life carried on without the slightest movement of the body.

A young lady, whom I have recently had under my care, who had disease of the hip, and lateral distortion of the spine, lay, on one occasion, for ten days and nights without being moved, "a consummation devoutly to be wished," as the very slightest motion occasioned her the most excruciating pain. This patient lay on the couch for more than sixteen months, and never expressed the slightest wish for any change of position. When the matter which had formed in the joint had opened itself externally, she was obliged once a day to be removed from the couch, that the part might be washed, and the soiled linen changed; this, however, was a process so easily effected, that she scarcely made any complaint about it, although certainly, previous to the opening of the abscess, it had not been performed without much pain. This patient has quite recovered, excepting that, as the hip joint had become dislocated, the limb is of course shortened.

A case considerably analogous to this, is that of a poor little girl who had abscess of the hip, and consequent dislocation, several weeks before she was placed under my care. But she had, in addition to the above, a distressing symptom, the consequence, doubtless, of a considerable lateral curvature of the spine. There was continual spasm of the muscles of the legs, and one leg was drawn, and had become fixed so tightly over the other, that it was almost impossible to separate them. She suffered, also, very great pain upon the slightest degree of motion. Her father was shepherd upon a farm belonging to Davies Gilbert, Esq., the late president of the Royal Society, whose lady had requested my attendance, and who watched the progress of the case. I cannot describe the result more emphatically than she has done, in a letter to a friend of mine, by whom I am permitted to extract the following passage. "It is but a few weeks ago that the poor child's legs were contracted in the most frightful manner, and she then suffered so much pain upon the slightest motion, that when it was necessary to lift her from her bed, she was frequently thrown inio convulsions; and now, owing to Mr. Verral's treatment, so rapid a change has taken place, that last Sunday she was enabled, by the help of her crutches, to walk to church, a distance of half a quarter of a mile."

In the two cases I have just related, as well as in the one I am about to relate, I have not merely to boast that the patient recovered in the prone positon; my boast is, that but for the prone position, they would not have recovered so soon, so easily or so perfectly; for in the supine position the only other advantageous one, they were absolutely unable to lie. The following history, which is that of the second patient whom I placed upon the couch, will exemplify the difficulty, and the mischief of attempting to force these patients to lie in the usual manner. Ann Martin, a poor girl, aged fifteen, had a very considerable posterior curvature of the dorsal vertebræ. The legs were partly paralyzed, or I should perhaps rather say, were rendered useless by contraction, which had drawn the one across the other very firmly, and had rendered her incapable of straightening the knees. I directed her to lie on a mattrass in the sup-

position, but the attempt gave her great pain, both in the back and legs, and produced violent cramp, which still more firmly drew up the legs, and fixed them more tightly across. The consequence was, that at night, when the superintendance of the mother necessarily ceased, she always got on her side, and lay coiled up in the worst possible position. Upon this I resolved to place her on my couch, and upon that she lay with perfect ease; the legs soon became relaxed, and capable of the wonted voluntary motions, the back gradually became straight, and after a few months she was dismissed well. The termination of this case was not so favourable as I could have wished. The girl went to service probably too soon, probably in too laborious a situation. In three years she again applied to me; the spine had again given way, and a large abscess had formed in the neighbourhood, but I confidently hoped was not connected with a diseased state of the vertebræ; the result proved my opinion to be correct. I placed her again upon the couch, and opened the abscess. She seemed to be going on well, when, by one of those changes so frequently occurring, in rural districts especially, so derogatory to the profession, and detrimental to the poor patients themselves, the attendance of the paupers of that parish passed out of my hands into those of another medical person, who, in utter ignorance of my plans, and of my motives, in utter ignorance of the former history of the case, abruptly dismissed the couch, placed her in bed, in which I heard also she was allowed to lie pretty much as she liked, and though she ultimately got well, it was not without considerable degree of deformity.

But amongst the greatest triumphs of the prone position, I must call your attention to two cases, which are at present under my care. The first is that of a poor little girl, aged about four years, the child of parents in the lowest state of poverty, the father having for many years laboured under a painful, and apparently incurable disease, though he had become the progenitor of nearly a dozen children. I mention this, to account in some measure for that negligence on the part of the parents which allowed disease of so much importance to proceed so far without having consulted me on the subject, I being the medical attendant of the parish by which they were supported. When I saw the child, I found a posterior curvature of the dorsal vertebræ, terminating upwards in an acute angle, from whence the cervical vertebræ advanced suddenly forwards, so that the neck seemed to be completely buried and lost, and the head seemed to rest absolutely on the shoulders. There was paralysis of the lower extremities, excessive emaciation, a tense and tumefied abdomen, great contraction of the chest, cough, dyspnœa, palpitation of the heart, depraved appetite, extreme debility, and fever, apparently of a hectic character. This child was placed upon the couch about a year since, and a very considerable improvement was speedily perceived, not only in the shape of the spinal column, but also in her general health; which improvement has progressively advanced up to the present time, although the want of sound and sufficient nutriment, as well as of care and cleanliness, evils incidental to the poverty and the large young family of the parents, have rendered this one of the most unfavourable cases I have ever had to attend to. My other patient was more fortunate, for though the daughter also of poor parents, she resided in the vicinity of Firle Place, the seat of Lord Gage, to whom, and to Lady Gage, the child has been indebted for the nourishment which at one time was considered indispensably necessary for her support. This case I did not see until it had existed a very long time, not until it had advanced so far as to be incapable of a perfect cure. There had been disease of the bodies of several of the lumbar and dorsal vertebræ, abscess had formed, matter, together with portions of bone, had made its way out at the groins, and through two or three openings in each of the thighs. She had been long under the care of the parish surgeon who apparently despairing of the case, had not recently thought it necessary to pursue any particular medical treatment. In spite, however, of all these unfavourable circumstances, her parents had fancied that about two or three weeks before I saw her, an evident change for the better had taken place in her health, in which they were probably not deceived, as anchylosis had begun to take place amongst the diseased bones, indicating, as I conceive, the existence of more healthy action. The distortion, however, still continued to increase; and, to use the expression of her mother, she grew shorter and shorter every day. I found her creeping about, though with much difficulty, supported upon one crutch, and that a great deal too short. She was exceedingly emaciated; the body was bowed forward so as to approach to a semicircle; the countenance had assumed the appearance of old age, and she was not at eleven years of age, equal in height to many a child of five or six. On examination, I found an immense protuberance on the middle of the back, forming at its apex a very acute angle at least four inches without the natural line of the spinal column. In consequence, however, of the bowing forward of the head and shoulders, the whole spine seemed to be one vast lump of distortion, with this angular protuberance growing out of its centre, like the bump on the back a camel. There was also considerable lateral distortion, the consequence, probably, in great part, of her being allowed to depend upon a

single crutch; and the ribs had been drawn back by the distorted spine and were involved in, or indeed formed part of the general deformity behind, while in front, they and even the sternum were so sunk in, that they were almost buried from the view. This child was placed in the prone position on the 28th of March, 1835, and from it she never has been moved, excepting that for the last two months, I have permitted her to stand sometimes for an hour, supported by two crutches so long that her feet can but just touch the ground. The progress of emendation has been very satisfactory. The discharge soon abated and has long since entirely ceased. The wounds are completely healed. The health has greatly improved. At the end of three months she had increased in height above an inch, and she is now more than two inches taller than when she first assumed the position. The lateral curvature speedily disappeared altogether, and the spine, which, as I have said, was at first bent like a bow, began soon to approach to a straighter form. To facilitate this process, I was enabled at the end of about three months to place a sloping board upon the upper part of the couch, which by raising the shoulders and neck, have fully answered my expectations. The natural hollowing of the back is even considerably restored both above and below the tumour, and the tumour itself is also much diminished in size, although it cannot, I conceive, be possible to obliterate the angular protuberance produced by the anchylosed bones. The little girl, however, can now stand perfectly upright; the distortion of the chest is almost completely remedied, the general health is become perfectly good, and the countenance has assumed its naturally healthy and youthful character.

The use of the prone position has in both the patients been attended by the most important advantages. In the first place, they could not have lain supine, especially the latter, in consequence of the rounded state of the back; but if they had been forced by any contrivance into that position, so sharp in both cases was the angle formed by the protruding bones, that the pressure would in a few days, perhaps in a few hours, have wrung and excoriated the parts. Against the ordinary excoriations and sloughings about the sacrum, nates, &c., so constantly occurring in the supine position in emaciated and debilitated subjects, many contrivances have, I know, been resorted to; and some of them, no doubt, with much benefit, though I believe none have been discovered that have afforded complete protection. But against the painful and ultimately destructive excoriation of these protruding angular distortions, no contrivance has been devised which must not, as regards the cure of the distortions themselves, be completely inoperative, if not positively injurious. Take the hydrostatic bed for instance. Had the latter child been placed supinely upon it, is it not evident that the angular tumour would only have been preserved from the effects of pressure by the displacement of the water and the formation of a bed for itself in which to lie with ease? In like manner would the curved spine have sunk into a cavity of its own shape and size, in which case the position could have had no tendency towards the correction of the deformity, but on the contrary would, I think, have had somewhat of an injurious effect.

As regards the favourable operation of the position upon distortion of the spine, I have but one more observation to make, which is, that as I do not allow the feet to rest on the foot board, excepting, perhaps, during the hours of sleep, there is, owing to the somewhat depending state of the legs, a gradual but constantly acting strain upon the parts, tending to stretch out and straighten the distorted column, which must often prove as effectual as the more violent but less durable modes of stretching, which have sometimes been resorted to. Yet is there one more advantage to which I must shortly allude, which is the great facility that the prone position affords us of varying the exact posture, so as to make it accommodate itself to the curative process. We cannot put compresses under the backs of our patients, without the certainty of giving pain and of causing excoriation; but I have placed rolls of linen, &c., under the pubes so as to raise the sacrum; and I have, as I said above, placed an additional sloping board at the top of the common one, to give a greater elevation to the head and shoulders; and my patients may always have exclaimed, with Hamlet, "Let the galled jade wince, our withers are unwrung."

For the various contractions and distortions of the chest, it has been usual to place the patients on the back, with the view, I presume, of taking off the pressure of the lungs, &c., against the distorted parts. In these cases, however, the prone position is so immediately and effectually operative that it ought, I venture to assert, to be at once and universally adopted as the means of removing such imperfections. A young lady, aged about ten years, was constantly affected with most violent and alarming fits of asthma. These had been many times repeated before it was discovered that the chest was considerably distorted. Upon this being shown to me, I found it in front strangely contracted and deformed, and immediately advised a trial of the couch. I had in this case nothing but the sin platform with the angle, and this being being placed on the sofa, she used to lie on it for four or five hours in the day while she was learning her lessons. In very few months she was enabled to la

aside, the chest having become perfectly well formed, and the asthma having entirely ceased. So immediate is the remedial effect in these cases, that a young gentleman, who was formerly a pupil of mine, and who had considerable protrusion of the ribs on the right side, has had the distortion most sensibly reduced by reclining on the couch for a single hour; but as it causes him but little inconvenience, he will not take the trouble to persevere in the plan.

There is but one other case with the relation of which I shall trouble you. On Christmas day, 1828, the cook on board the Hyperion frigate, then lying in the harbour of Newhaven in Sussex, slipped up as he was running infront of the cooking fire, and as he was falling forward, caught hold of a large boiler of hot water. The consequence was, that the whole of the back of the head, body, and thighs was most terribly scalded. For three days his life was despaired of, but at that time he rallied a little, so as to afford some faint hope of recovery. This favourable appearance did not last long: they could lay him in no position in which he did not press upon the excoriated parts, and wherever the pressure was, an extensive slough took place in a very few hours. The man appeared to be sinking fast, when I happened fortunately to meet Mr. Bailey, the surgeon. I mentioned my then newly tried invention, and it was agreed that I should go on board and give directions for the making of a couch. I did so, and the patient was placed upon it a few hours after. I could not but be gratified with the salutation I had from the poor fellow, when I visited him a few days after. He grasped my hand and exclaimed, "God bless you, sir; you have saved my life, however." I believe he spoke the truth. In three weeks he got off from the couch quite well.

The favourable result thus obtained authorizes me to point out the prone position as being highly advantageous in all cases of burns, scalds, or other accidents affecting the posterior parts of the body. It authorizes me also, in conjunction with some recent and fatal occurrences, to point it out as the position which ought to be resorted to, whenever the lash shall be laid on the back of a criminal, whether in our prisons, our ships, or our barrack yards. With the question of the propriety or necessity of continuing that terrible infliction, we, in our professional capacities, have nothing to do; but it is clear that when the lash has either directly or indirectly caused the death of its victim, it has inflicted a penalty beyond that which the sentence contemplated. To lash and to lacerate is the office of the executioner, to bathe and to heal is the nobler province of the surgeon; and the assurance that the prone position must avert the occasional danger and greatly facilitate the cure, induces me to speak of it as a means that ought always to be resorted to.

And now, having spoken of the prone position in those cases in which I have found it beneficial, let me ask whether it must not prove equally beneficial in many other cases? In injuries of the spine, in paralysis of the lower extremities, whether caused by accident or otherwise, must it not be eminently advantageous, not only in affording rest and ease, and a ready means of applying external remedies, but also in preventing the extensive sloughings, which so often occur in these cases when placed supine, and which so frequently cause or accelerate the death of the patient? If there be a necessity for the use of the catheter, it could not, it is true, be well introduced in this position; but that difficulty might be obviated by the use of the double couch, which I before adverted to. In carbuncle or other similar diseases attacking the back part of the body, I would also with confidence resort to the prone position. I once saw a person who died from a very extensive carbuncle on the loins, whose life I think might have been saved, had I then known or thought of the position I now recommend.

In fractures of the thigh, or in those of the neck of the thigh bone, I think it might be eminently useful, and I have thought that in those cases, if a weight were attached to the foot, an extension might be kept up, which would contribute greatly to the more perfect cure. But there is one disease, which is out of the province of surgery, in which I should be most happy to see the position tried. If a case of phthisis pulmonalis be susceptible of cure at all, I do conceive that nothing could more assuredly facilitate that cure than the placing the patient in the prone position. I hope I shall not be jestingly told that, having mounted my hobby, I am riding a free horse to death. When I reflect on the evident advantages of a horizontal posture; when I consider the impossibility there usually is of lying on the back or on one side; when I think of the cough which accompanies every movement, of the restlessness and weariness which accompanies the lying in the usual positions; of the wringing and excoriations of the back or hip, upon which the patient does lie; of the necessity there is for moving to take drink and food, and even to cough and to expectorate; and when, on the other hand, I consider the perfect ease of the prone position, the entire freedom from motion, which is its great characteristic, the support it would give to the chest, the equable warmth it would keep up, the ease with which anything may be expectorated, the improvement which it may make in the form of the walls of the cavity, and the entire certainty that the patient will never be wrung or excoriated, nor prevented

for one single hour from sleeping, in consequence of any pain from pressure; when I say I consider all these things, I do most decidedly think that to the prone position we may look for an important auxiliary to any means that may be devised for the cure of this formidable disease.

I have said nothing on the subject of either the general or local treatment of the cases I have related. It may be supposed that I have some favourite opinions upon that part of the question; but this I have purposely omitted, because the posture I am advocating is consistent with all the usual modes of treating such diseases, and need not, therefore, supersede by its use the plan of treatment adopted by any gentleman who may be disposed to try or to recommend it.

In conclusion, I beg leave to repeat my perfect conviction, that the PRONE POSITION will enable us to cure many cases of disease which will without it be incapable of being perfectly cured; and that even where it cannot altogether cure, it will afford such a chance of improvement, and such a certainty of relief, that it ought to be very generally adopted. To restore health to the diseased body, and beauty to the distorted form, are the proudest boasts of our art, and second only to these is its power of alleviating the pangs of sickness, and of smoothing the passage to the grave.

On the Query—"Is the efficacy of Vaccination in preventing Small-pox the same now as thirty years ago?" By WILLIAM ELLIOT M.D., Carlisle.

SIR—Having of late devoted much time and attention to the study of the history and theory of Vaccination, as well as been engaged in its practice, I presume to lay before your readers some of my views regarding that operation, in the hope that the facts adduced, the reasoning employed, and the plans recommended, may be more generally known, and, if approved, may lead to more extensively beneficial results, than if merely committed to the local press.

On the importance of the subject at large, not a word need be urged: while the discussion of certain special questions I should wish to raise, finds an ample apology in the occurrences connected with vaccination during the last fifteen years.

Of the many disputed points respecting vaccination, there are two which more especially claim earnest attention and speedy settlement. These are,

I. The question whether the vaccine virus undergoes a diminution of its protective energies as regards (a.) the *general stock*, in consequence of transmission through numbers of human beings, to whom it is foreign; —(b.) the stock communicated to *each individual*, in consequence of changes of constitution induced by various causes. II. The propriety, *however the foregoing questions be decided*, of (a.) recurring occasionally to the original source of the virus in the cow or horse for a fresh supply; and of (b.) revaccinating each individual (however satisfactory the first operation may have been) occasionally in after life, and particularly when any changed state of the constitution is anticipated.

Respecting these points, I propose to myself little more on this occasion than to offer a few references to various authors, which may embrace, I., arguments deduced from (a.) ascertained facts, and (b.) from reason, probability, and analogy;—and II., accounts of steps that have been recommended and actually taken, in connexion with vaccination, in various extensive jurisdictions.

I. 1. (a.) The belief so generally entertained for the first twelve or fourteen years of the vaccine era, that this remarkable prophylactic, if properly administered, might be made to exterminate small-pox in perhaps every country of our globe, was not only strong and sanguine, but was well grounded and thoroughly warranted. The circumstances that justified it I shall not now detail, but shall merely refer to the history of small-pox in every locality where Jenner's now *shamefully neglected Rules* for vaccinating were carefully observed. A sketch of the results obtained in Vienna and Milan, from 1804 to 1812—of the total exemption of Sweden and Denmark from small-pox for twenty years, dating from 1803, and of some English parishes as well, will be found in Baron's life of Jenner, pp. 264—7, 287-8. The very decisive and complete benefit conferred on Bengal and Ceylon for the first few years requires only to be mentioned in order to recal the striking recollection. But in the lapse of years, "varioloid diseases" began to gain ground alarmingly upon us:—epidemic visitations of our old enemy no longer found the community impregnable, but made many seizures, and not even a few victims. (See Thomson and Cross's works, and reviews thereof in the Edin. Med. and Surg. Journal of 1818, 1820, &c.) Dr. Geo. Gregory, in his parliamentary evidence, cites a letter of Mr. Greenhow's of Newcastle on Tyne, in which he states in 1833, "not only is the small-pox after vaccination becoming much more frequent, but it is also *much more virulent*, and death occasionally ensues." (See a remark of Mr. Brown's of Musselburgh, Edin. Med. and Surg. Journ. 1819, p. 6, paragr. 3.) Dr. G. Gregory, in his Essay on Vaccination published in the Cycl. Pract. Med., alludes to the "proportion in which vaccination fails to impart that perfect and permanent security against small-pox which

was its early attribute." His latest Small-pox Hospital Reports shew a mortality from small-pox, in the vaccinated, of five to seven or eight per cent. of those seized. De la Grange of Paris (see Lancet 1829) boldly asserts vaccination there to be no longer what it once was. Dr. Howison (Ibid, 1831) a very experienced vaccinator, in Edinburgh, has likewise asserted the probability of decadence of the energy of the stock in that place. The same conviction, or at all events suspicion, influenced many in Italy in 1829. In 1832, the Medical Board of Calcutta expressed itself as labouring under a similar apprehension. (See Calcutta Med. and Phys. Trans. vol. vi., or Edin. Med. and Surg. Journ. Oct. 1835). Lastly, I may perhaps be permitted to say, that the facts which have come under my own observation have led to a similar belief on my own part. I would only further remark upon the comparative infrequency of such a resulting cicatrix as is seen in the arms of those vaccinated twenty-five or thirty years ago;—on the rarity of any constitutional disturbance from vaccination *in infants* in the present day: and on the frequency with which a vesicle, genuine as far as *appearances* go, produces in every instance in which it is used a form of the disease more or less imperfect and therefore more or less inefficacious. This is corroborated by Dr. G. Gregory's remarks, (Essay in Cycl. Pract. Med. vol iv., p. 406.) On the varying degress of protection afforded by different forms of vaccine disease, see Jenner's opinion in his life by Baron, p. 285: his letter to Willan in 1806 in the appendix to Willan's work: Bateman on Cutaneous Dis. 3rd. Ed. p. 221: and Brown in Edin. Med. and Surg. Journ. 1819 pp. 68, 69.) There is no doubt in my own mind of the existence of a great variety in the stocks of vaccine lymph now in use, and that consequently, and in accordance with the quotations just given, the protection afforded by vaccination from these various sources differs in some cases very widely. How many such varieties exist, and how they are to be defined, I shall not here attempt to point out. I should be inclined to say, that, for practical purposes, an accurate notation of the extremes would suffice, (viz. of that vesicle which is perfect according to the usual definitions, and of that which, more or less rapidly—according to circumstances—has acquired the character of a completely spurious pock, and becomes at length in some cases effete;) it being expedient to reject all vesicles that are of doubtful character, as sources of subsequent vaccination, and to revaccinate those in whom they occur, as Jenner himself recommended. As some with whom I have discussed the subject, (and perhaps many others besides,) entertain an idea that there are only *two* kinds of vaccine lymph as to *quality*, and that all that is not perfectly good is perfectly bad, and the converse; nay, as some have asserted that all that is not good is effete and "incapable of propagating," though Dr. G. Gregory asserts the probability of irregular vesicles admitting of renovation, or a return to an apparently healthy form, by repeated transmission through healthy children (certainly a most unwarrantable experiment to try), I have considered it necessary to quote the foregoing opinions. And, lest any should suppose that all lymph that is capable of propagation must necessarily be good—i. e. essentially good, I shall here also refer to a strongly expressed opinion of Jenner's on the actual propagability of what he denominates "spurious virus," capable of affording *some* but a *very imperfect* degree of protection. (See his Life, by Baron, p. 285). The preceding quotations from Brown, and others, also bear on this point. As regards "long humanized" lymph, Dr. G. Gregory remarks, as above shown, that the vesicles resulting now-a-days from it may be *to all appearance* regular, yet the lymph obtained from them not unfrequently propagates an imperfect form of the affection in every one of a number of cases in which it is used (op. cit. p. 406, col. 2nd). Now, as the argument deduced *from appearances only* against any deterioration of the general stock, is, from the above and other considerations, proved to be defective, the assertion of Thomson and others that long humanized lymph is equivalent to recent, can be allowed but little weight, inasmuch as it is not the *appearance* but the *protective energies* of the vesicles, respectively, that must decide on their identity or their difference.

(b.) The idea of the gradual deterioration of the vaccine virus is asserted by Moore, Thomson, Dr. Geo. Gregory, and others, to be contrary to reason and analogy. They suggest, that inasmuch as other contagious diseases do not, in their transmission through numerous subjects, undergo any loss of energy, so it is unphilosophical to suppose that the vaccine virus should become gradually enfeebled from such cause. But I would submit, in concurrence with what appears to have been the opinion of others more conversant with the subject, and more entitled to general attention, that in cases of vaccine disease and any human contagion affecting the frame of man, there is wanting that parallelism of circumstances which would alone justify us in using analogies derived from the one in theorizing respecting the other. Small-pox (and I thus state my argument), syphilis, plague, will not degenerate *in man*: cow-pox will not degenerate *in the cow*. Transfer small-pox, &c., to another genus of animals, characterized by a separate train of diseases, and you wander from the guidance of all human analogy. From that guidance you no less widely deviate, when you transfer cow-pox to man; and, after such a step, there

seems nothing unreasonable in the supposition, that the specific energy of the epizootic malady should, gradually, become impaired, after transplantation into an entirely foreign soil. The late Dr. A. Duncan, jun. (see Edin. Med. and Sur. Jour. 1820, p. 238), in noticing the increased frequency of varioloid disease amongst the vaccinated, says, "Another explanation has been suggested, and deserves more consideration, as it is understood to be that which is espoused by the venerable Dr. Jenner, viz., that the vaccine virus has degenerated in its quality, in consequence of its passing through a succession of individuals of the human species, without recurring to the original source of the disease in the cow or horse." I again refer to the papers of Drs. De la Grange and Howison, and to the order issued by the Medical Board of Calcutta; also, to the fact that while Jenner, that exalted and virtuous benefactor of our race, lived, he was frequently engaged in renewing the supply of virus from its original source, in compliance with the requests of numerous correspondents.

2. The question of the decadence of vaccine influence in *individuals* still remains to be noticed. Many who either deny, or very reluctantly admit, the possibility of a gradual deterioration of the general stock, strenuously maintain, and ably and incontestably prove, that in many individuals the vaccine protection is by degrees impaired, or even lost. It is clear that some of the facts attributed to decadence of the general stock may be ascribed to the cause now under consideration. Dr. G. Gregory appears to confound the two in a remark he makes on certain cases vaccinated by Jenner himself (Cycl. Pract. Med., vol. iv., p. 413). Without controverting this objection in detail, I shall only here state in reply, that of late years infants have died of small-pox three or four years after vaccination, and adults have had very severe forms of "*modified*" small-pox two or three years *after even a second vaccination*, of which examples are known to me. The following are Dr. G. Gregory's positions on this question, deduced from his own researches and observations, as well as those of Stein and others. "The early experiments of Jenner and Woodville sufficiently proved, that for two or three years, at the least, after vaccination, the human body is unsusceptible of small-pox by inoculation." He next shows "how much more frequent small-pox is amongst adults than children:" and says, lastly, "We are strongly disposed to believe that the susceptibility of small-pox does return in many cases, more especially when favoured by certain concurrent circumstances. Of these, the most energetic hitherto ascertained are, change of climate, and the period of puberty." Instances have occurred of individuals, who were vaccinated by Dr. Jenner in the earliest periods of the vaccine era, subsequently taking small-pox; and in *one* at least of these cases, of which I lately received authentic information, the patient, a lady of title, died of the attack. I mention this in order to show that in some instances it would appear, *beyond a doubt*, that the influence of vaccination, even from recent virus and of undoubted quality, may, in the lapse of years, be entirely lost.

II. As to the steps which, under the influence of the foregoing views, have been recommended and taken in various parts of the world, I must, as regards I. 1., confine myself to those that are formally recorded; although, as I have already stated, Jenner, and probably many others (e. g. De Carro in Vienna, Sacco and Griva in Italy, and some others in Lombardy, Paris, South America, and elsewhere—see Life of Jenner, pp. 453, &c.) made a practice on almost every favourable opportunity of renewing their supply from the cow or horse. By an ordonnance, dated 1818, of the King of Wirtemberg (see Life of Jenner, p. 270), amongst other excellent enactments regarding vaccination, "provision is made for a supply of fresh ichor *annually from the cow*, and for vaccinating *from arm to arm*." Something similar has, I believe, been done in Italy since 1829: and in 1832 an authoritative request was issued by the Calcutta Medical Board to the surgeons under its extensive jurisdiction, to ascertain the nature of the epizootic then affecting the Bengalese cows, and "to renew the supply of virus if so be that it has degenerated." Various individuals, as I have already remarked, have urged a similar wish of late years, viz., De la Grange, Fosbroke, Howison, &c. As regards the subject considered under the head I. 2., not only do Dr. G. Gregory and others, of our day, recommend a second or adult vaccination (see Cycl. Prac. Med., iv., p. 415), but so also did Jenner and Bateman, when descanting on various forms of irregular vesicles, as is shown by the following extract from p. 221 of the 3rd Edit. of Bateman on Cutaneous Diseases: "At all events, though the constitution is sometimes fully secured from the infection of small-pox even by the irregular vesicles, yet as it is more commonly but imperfectly guarded by such vesicles, the propriety of Dr. Jenner's caution is obvious, that 'when a deviation arises, of whatever kind it may be, common prudence points out the necessity of reinoculation.'"

I beg to submit that, from what has been advanced, it is highly probable that the present tendency of small-pox to increase its inroads might be materially lessened, by the adoption of the following measures:—

1. Having recourse, after a certain limited interval, again and again to the original source of cow-pox.

2. The re-vaccination of individuals, *even under these circumstances*, more particularly when approaching maturity, or about to change their climate.
3. The publication, on an extensive scale, and especially by the Vaccine Institutions, of printed rules for the proper performance of vaccination (i. e. the diagnosis of the perfect disease, and the selection of proper subjects from whom and to whom to communicate it), to be wrapped round charges of lymph, or otherwise distributed.
4. *Medical students* should have their attention more carefully directed to the entire subject of vaccination, than has yet been the case.

Next to the occasional supply of original lymph, and the practice in after-life of re-vaccination, some such particular measures as the following would appear most advisable, and highly expedient to be resorted to, together with two former, under the sanction of the authorities—legislative or medical—of the land.

1st. The reprinting of Jenner's "Instructions for performing Vaccine Inoculation," a mere pamphlet, yet complete, I believe, as regards the subject treated of, excepting only his vague definition of herpetic eruptions, which are apt to prevent and pervert the development of the vaccine disease. The omission, however, of such minute definitions is of no vital consequence to the value of the work.

2ndly. The striking off a number of small lithographed sheets for gratuitous distribution, containing the following or similar brief directions, and chiefly intended for an envelope to charges of lymph:—

"Remove the virus from glasses by admixture with a little blood from a preliminary puncture. Afterwards vaccinate from arm to arm, preserving no virus on glass, except for correspondents, to whom send none more than ten days old. Four to six punctures will insure more perfect vaccination, and a more abundant supply. Select children of two or three months old: vaccinate none who labour under eruptions, excoriations, or constitutional irritation from dentition or other causes. Use lymph only from such vesicles as are pearl-coloured, slightly blueish, tolerably circular, depressed, or at least flat in the centre, cellular, and containing limpid and transparent virus. Such vesicles as appeared before the second day, and on the eighth are large, of white, greenish, or turbid appearance, surrounded by much inflammation—more especially by the double areola, which should not occur before the ninth or tenth day, should invariably be rejected: and in every such doubtful or irregular case, a second vaccination will, when all circumstances are favourable, be proper. In all cases, re-vaccination at the age of fourteen is advisable."

In a subsequent communication, I shall offer a few observations on the performance of the operation, and shall direct attention to a few striking instances of difference of opinion amongst certain of our "authorities" on matters of great consequence relating to vaccination, and more especially to a few remarkable passages occurring in a curious paper on the subject, in the Cyclop. of Pract. Med. already referred to.

To you, Sir, as a public journalist, I in the meantime earnestly commend the important interests of vaccination, in the hope that, by your keeping them constantly in view, influential individuals in the metropolis, and more particularly the officers of the three Vaccine Establishments, may be induced to give their attention to the subject, and to employ the powerful abundant means at their disposal towards the accomplishment of such plans as shall have for their object the conducting of vaccination, within these realms, on the principles that shall appear most rational, most conducive to public health, and most deserving of public confidence.

WILLIAM ELLIOT.

The London Medical
AND
Surgical Journal.
Saturday, May 28th, 1836.

PROSPERITY OF KING'S COLLEGE—THE NECESSITY OF ADOPTING LIBERAL PRINCIPLES.

WHEN the exclusive College in the Strand was established, every one will remember the zeal and assiduity of its promoters and founders in furthering its welfare. They will not forget that one of the baits thrown out to allure over-anxious parents to send their sons to the Institution, was the high moral discipline they would be subjected to, and that religion would intermix with all their proceedings. They were to be members of the Church of England, to attend prayers in the Chapel daily, and to this was to be added the wearing of caps and gowns, to distinguish the students wherever they went. These regulations, originating as much in the chicanery and love of gain, as of the "high moral"

feeling of the promoters of "King's College" were kept up so long, and so long only, as they were found to be useful to the coffers of the treasury. Some of the Jewish persuasion applied for admittance to the Lectures—were they refused? No! —the law of exclusion was dispensed with, abrogated, the establishment was not in a state to refuse a single student, whatever might be his creed. But mark the consistency of the Council of the College; mark the wisdom which presides at their deliberations—their liberality and consistency. Lecturers of acknowledged talent, men of the first walk in their respective departments of science, applied for professorships; how were those applications treated? why, rejected, refused, not because the candidates were incapable of filling the vacant offices, not that they had any stain upon their moral character. No! but simply because they were not members of the Established Church of England. What results could be contemplated from bigotry and exclusiveness of this character? The council in their blindness expected that it would increase the prosperity of the school; they believed that the admission of such men as Faraday, and Ritchie, would be the means of withdrawing the patronage of many of the clerical and lay lords from the Institution! The gentlemen named were not of the high-church party, therefore they could not impart knowledge to students professing that creed! And thus have the masters of King's College stultified themselves; they have educated pupils of all sects, and denominations, in spite of the regulations they professed to start with, but they have rejected the very first men in science, because they were not of a particular belief. This system of exclusion on religious grounds only, as all who think rightly foresaw, has done much towards ruining the medical school of King's College. Favouritism, party politics, and narrow views respecting religion, will not succeed in an era like the present, however much they might have been beneficial to an Institution in less enlightened times. The student of medicine, in entering to a course of lectures on the various branches of medical science, does not inquire into the particular creed of the teachers; his object is the acquirement of that knowledge which will enable him to practise medicine with success, and he looks to the capacities of those he enters to, to impart that knowledge. It is the attainments of the teacher, and not his 'form of faith' that is looked to! Witness how successful the University of London has been as a medical school, by acting diametrically opposite to the "Opposition School," as it was once called. The professorships in the London University were filled by the most competent candidates, no matter in what their religious belief consisted; Jew or Gentile it mattered not, provided they were men of unstained reputation in morality. These liberal views have met with the success they deserved, have filled the hall of the London University with medical students, and raised the character of the Institution to the highest pinnacle.

The exclusive principles of the College, on the contrary, has had the most withering effect, has deprived that establishment of most of its students. Indeed, its success will be easily calculated by the number of resignations which have lately taken place. The professors of surgery, of materia medica, and medicine, have resigned their chairs, partly we believe from the number of students having declined, and partly, we are informed, from the squabbling and quarrelling which has taken place among the Lecturers. With such experience before them, how will the Council act in their new appointments? Will they still persist in that absurd and bigoted policy which has already so much injured their establishment, which has excluded from it some of the greatest men of the day, has deprived it of its pupils,

and sunk it into insignificance? or, will they, in the spirit of the times, take up with liberality, and give themselves a chance of retrieving their fallen fortunes!

MEDICAL CORONERS.

MEDICAL Coroners have been appointed in several of the new Boroughs, the electors having seen the propriety of excluding lawyers from an office which they are incapable of filling. We are convinced that in a short time the race of attorney-coroners will be extinct.

EFFICIENT MEDICAL REFORM.

Interview of a Deputation of the Members of the Royal College of Physicians and the Chancellor of the Exchequer.

WE have much pleasure in informing our readers that a Deputation of Members of the Royal College of Physicians was most favourably received, a few days ago, by the Chancellor of the Exchequer, and that the result of the conference was most satisfactory. The most efficient reform will be effected in the College, and the dignity of the profession duly maintained in the proposed changes. The Members of the College were highly pleased at the sentiments expressed by the Chancellor, and with the plan of the Metropolitan University. The College is also busy in discussing just and liberal views towards the members at large; and the hydra-headed monopoly of that body is about to be exterminated.

RESIGNATIONS AND APPOINTMENTS AT KING'S COLLEGE.

WE understand that Mr. Guthrie has declined the offer of the Professorship of Surgery, as have also Mr. Hodgson of Birmingham, Mr. Mayo, and Mr. Earle.

Sir Henry Halford has resigned his seat in the Council, on the resignation of Dr. Francis Hawkins of the Chair of Medicine; and Mr. Green has been elected in his place. It is said that Dr. Watson is to be Professor of Medicine, and Dr. Gregory of Medical Jurisprudence, which the former vacates, and that Dr. Sigmond is to be appointed Professor of Materia Medica, in the place of Dr. B. Hawkins.

The Medical Members of the Council, at present, are Sir Astley Cooper, Sir B. Brodie, and J. H. Green, Esq., on whom the important duty of filling up the vacant medical appointments principally, if not entirely, depends.

Medicinal Employment of the Kreosote or Creosote; or Essence of Tar. By Powell Charles Blackett, Surgeon, R. N., M. R., C. S., F. L. S., &c. &c.

CASE 1.—E. B., a lady, aged 43, tall and rather thin (on account of long and continued illnesses for the last two or three years), and of a lax fibre. The patient had also suffered much from odontalgia, and several of her teeth being much decayed, she had them extracted; after which she complained, always more or less, of severe head and face-ach: the pains were more severe at night, and so violent as to cause vertigo and great anxiety: at these times the perspiration was so great, that she was obliged to change her inner garment several times during the night. This patient applied to me on the 2nd of May, 1834. I found her very much reduced; bowels constipated; appetite gone; had not menstruated for seven months; complained much of chilliness; severe head and face-ach; urine scanty; breath fœtid; pulse low, and somewhat sinking.

I ordered her at night calomel and James's powder in form of pills, and to take early in the morning an aperient draught. This day, 3rd of May, found the bowels had been well relieved, and my patient more comfortable; continued this plan every other day for three weeks, and then gave her tonics with occasional laxatives, and in the course of five weeks, she was so well as to be able to leave town, and complete her cure by sea-bathing; during the bathing the periods returned.

About the 19th May, 1835, this patient again applied to me, with all her complaints very much increased. She told me that her headach, &c., returned about the end of February, and that her friends had advised her to see a consulting practitioner, who cured all such diseases, &c. On further conversation with her, I found this person to be a dispensing druggist, or rather, if we can use the term, a non-ambulating apothecary, that is to say, a person who has not or cannot pass any examination. Her symptoms being the same, only more aggravated, I proceeded first by clearing well the bowels, which took about two weeks to get in proper

order; then I commenced with the colchicum wine, which very much relieved the tenderness and pain of the head, but not of the face; this plan I continued for three weeks, at the end of which time I added the liquor potassæ to each dose, as she complained that her urine was scanty; after this she appeared to get better: this state continued for about fifteen days, when she was seized with languor. I then omitted in her medicine the liquor potassæ, and added six grains of the carbonate of ammonia to each dose; at the end of a week from this all rheumatic pains had left her, and she was much improved in her general health, but the pains of face continued, which now put on a decided neuralgic character, the nervus communicans facici, or portio dura, being principally affected, the infraorbitalis, and the occipitalis nerves, being slightly attacked. My patient being rather of a scrofulous habit, I determined to give iodine combined with the hydriodate of potass twice a day, increasing the dose every third day. The following is the formula.

Take of iodine, ten grains;
Hydriodate of potass, twenty grains;
Distilled water, two ounces;

of which take ten drops night and morning. The dose was increased every third day five drops.

Also the following ointment to be applied every night to the face in the course of the nerves.

Take of lard one ounce;
Ioduret of lead ten grains—mix.

The symptoms gave way gradually, and in the course of sixteen days, she totally lost the pain during the night.

I now employed the ioduret of iron instead of the above mixture, giving a grain night and morning, and gradually increasing the dose to three grains twice a day.

This was persevered in for another fortnight, when I considered her well, and she went into the country, but returned in about ten days, with the pains in her face, bowels constipated, and general derangement of her whole constitution. I regulated the bowels, and not wishing to disfigure her face by the application of the argentum nitratum, I painted the face in the course of the nerves affected, with creosote; it caused at first a general warmth, but after I had left her, the pain became more violent, which lasted for half an hour, after which time it gradually subsided, and she had a very good night, when the pain returned, and became more violent after breakfast; the application was continued for seven days, the pain lessening every application, and at this time is quite gone. She begged me to continue it a few days longer, and at the end of the thirteenth day, I considered her perfectly cured. I have had the opportunity of seeing her several times, and she declares that her head or face have not troubled her since the cure *, May 20, 1836.

Case II.—A. G., aged 25, applied to me on the 27th of February, 1835. I found her in a deplorable state, labouring under chronic peritonitis for about two months. I relieved every symptom, excepting the large size of the abdomen; for this I ordered her vapour baths every third day, and after each bath to rub the abdomen with creosote, keeping the bowels gently open. After the third bath, the tumour began to subside, and continued to do so until it completely disappeared. She took in the whole seven baths, and continues to this day perfectly well.—May 20, 1836.

Case III.—A lady scalded her finger with sealing-wax; being present, I applied the creosote; it caused excruciating pain for about ten minutes; the part did not vesicate.

Case IV.—A. G., aged 43, received a blow on the right arm, exactly in the middle of the biceps, about seven years ago. I applied the creosote three times, which completely removed all rheumatic pains, from which she was suffering.

Case V.—J.M., a gentleman, aged 76, was attacked last June with great debility, and swelling of the hands and feet; not getting better, he went to Leamington, and there took the water and baths, and was properly attended by a very experienced surgeon, who nearly recovered his general health, but could not succeed in removing the œdema.

He returned to London the middle of October, when I found him considerably better, excepting the hands, which he could not use; he complained of irritation at the neck of the bladder; his bowels were regular, he had also some cough; he commenced the following mixture, and rubbed his hands night and morning with the creosote.

Take of infusion of buchu leaves, one ounce and a half;
Diluted nitric acid, four drops;

to be taken three times a day.

He was ordered, occasionally, a common cough mixture.

The first application of the creosote caused warmth; after twenty applications it removed in some degree the numbness; after this, the tumefaction began to diminish gradually, and totally disappeared by the end of February, 1835. I then gave him tonics, and now he is perfectly well, and can drive about in his cab.—May 20, 1836.

Case VI.—E. H., aged 27, was confined last autumn of her first child; all went on well, until the third week, when she complained of a dull pain and weight of the left

* The creosote caused only a slight discoloration. The left side of the face was the seat of the disease.

thigh and leg; on examination, I found, from the groin to the toes, one complete mass of white swelling (incipient phlemasia dolens;) it struck me that the creosote would be of service, which was well rubbed in for three nights; on the fourth day, the swelling and pain had left her; the bowels were kept gently moved during the application; she has continued well ever since.—May 20, 1836.

Hospital Reports.

NORTH LONDON HOSPITAL.

Clinical Lecture on Cases of Ecthyma. By Dr. A. P. Thomson. Delivered May 1836.

I HAVE to bring before you to-day two species of the same genus of eruptive disease, namely, Ecthyma. The first is that species denominated Ecthyma *febrile;* the second is E. *syphiliticum;* both are cases of considerable interest; and, at the same time, highly instructive. I will read from the book the cases. The first is that of

Ecthyma Febrile.

Ann Sullivan, aged 50, was admitted May 5, 1836. She is a fruit woman, in the streets; an Irishwoman, of irregular habits, and accustomed to live upon bad food; is much exposed to the vicissitudes of weather. About three months since was confined and delivered of her ninth child, which continued to suck up to the present time, and is in good health, while an eruption covered the mother, except the face. The present symptoms are, an eruption of a pustular nature, occupying the trunk, extremities, and scalp; they discharge a puriform fluid, and afterwards remain in a state of unhealthy ulceration. Some of the pustules in the palms of the hands have been open many days. The whole body is in a debilitated condition. Bowels opened by medicine only.

May 6. The head was shaved, and the following medicines administered. Biniodide of mercury, four grains; extract of opium, eight grains; sufficient bread crumbs to make eight pills—one every eight hours; three grains of hydriodate of potass, and three of hydriodate of iron, in an ounce and a half of water, between each dose of the pills.

The following ointment was applied to the affected parts. Three ounces of tar ointment, two drachms of diluted citrine ointment, and two ounces of spermaceti ointment.

On the 8th of May there was no change in the eruption, but the skin appeared in a moist state in other situations. The medicine agrees with her in every respect. The composing pill was repeated at bedtime, and she was put into a warm bath at 98 degrees.

On the 9th she was not so well; the medicines acted upon the bowels and were, therefore, discontinued. The eruption on the thighs and abdomen appears to be coming on, but upon the neck and breast declines; the skin itself is moist; there is great debility.

Infusion of bark with sulphate of quinine was given her every two hours; and she was allowed a pint of milk for breakfast only.

On the 11th, the report states that she still continues in a very weak state; and the eruption, in some situations, appears afresh. The bowels open, tongue foul, thirst.

On the 13th, the eruption does not decline, and the general strength is greatly reduced.

Some of the radix serpentaria was added to the mixture, and the following ointment substituted for the bark.

℞. Plumb. acet. ℥ j;
Acid hydrocyani, ♏ ss;
Unguent cetacii, ℥ iv;
Ft. ung. partis. affect. applic.

℞. Acidi nitrici dil. ♏ j;
Sacchari, ♏ j; Aq. lbij.
Pro potu communi.

On the 16th, she was somewhat improved, but portions of recent eruption exist about the thighs.

Now, the next is,

Ecthyma Syphilitica.

Ann Fitzgerald, aged 24, was admitted May 4, 1836. She is a wet nurse. About a year ago she had a child under her care, which was covered over with an eruption, suspected by her medical attendant to be syphilitic. In January or February the child bit her right breast when suckling; the wound thus produced, in a few days became inflamed and festered; at the same time the eruption, similar to the present, made its appearance. She is now covered with scattered patches of a pustular eruption, making its appearance in papulæ and dying away in furfuraceous scales; there is no inflammation surrounding the base, except in the first stage. Her general health is bad, and there is considerable debility. On May 4, she was ordered,

℞. Hydrarg. binioduret. gr. ¼;
Opii. extract. gr. j. m.
Ft. pil. h. s. s.

℞. Potass. hydriod.,
Ferri hydriodat. āā, gr. iij.;
Infusi. gent. simp. ℥ ii;
Haust. ter in die sumend.

She was placed on milk diet.

On May 6, her general health was much improved; the medicine agrees with her very well; the eruption on the legs begins to rub off in scales. Let her have half a grain of the biniodide in each pill; the mixture to be continued.

May 9. Improves daily; the pills and mixture, with five grains of the hydriodate of potash in it, to be repeated.

On the 11th. The eruption was dying off in scales. There was no inflammation

present about any of the pustules. General health much improving; appetite good, tongue clean, Bowels open daily.

May 16. No material alteration since last report; if any, for the better. The pills, with $\frac{3}{4}$ of a grain of the biniodide, and the mixture to be repeated.

[The Clinical Remarks will be given in our next number.]

LONDON MEDICAL SOCIETY.

Monday, May 23, 1836.

DR. WHITING, PRESIDENT.

Hydrocele.

Mr. Bryant stated that he had lately been called to see a gentleman, who, a few days before, had been operated on by an eminent surgeon, for the radical cure of hydrocele. After the operation the patient was allowed to walk home a considerable distance. There was some slight pain the same night, with a little swelling, which continued to increase for the space of three or four days; at the end of which time, Mr. Bryant was called in to see him; he had great pain; the scrotum was very much thickened, and enlarged to the size of a fœtal head. He had pain in the loins, and up the spine. He was ordered to remain quiet; Mr. B. could not at first altogether make up his mind that suppuration had taken place. Next day, the pain having increased, and the swelling not diminished, he made an incision into the tunica vaginalis, and evacuated a large quantity of pus, which gave great relief; and he is now nearly recovered. The tunica vaginalis had suppurated, the testicle was uninjured, Mr. B. having examined it through the opening he had made.

Mr. Kingdon thought that the surgeon who performed the operation for the cure of hydrocele, in Mr. Bryant's case, was highly culpable in taking so little care of the after treatment of the patient.

Mr. Dendy remarked, that in a case in which he had five times operated for hydrocele, three times by the palliative system, and twice by the radical plan, he had in the first of the last kind of operations, taken great care of his patient, and kept him quiet; no good result followed. In the last of them, he allowed him to ride to Epsom on horseback; this was not attended with any bad effects; the tumour only being as large the next morning, as previous to the operation.

Mr. Knight thought, that where a large quantity of fluid was forced out, as in this case, in twenty-four hours, that a favourable prognosis respecting a permanent cure might be given.

Mr. Jones considered that, in such cases as Mr. Dendy's, when the first injection had been found ineffectual, that severe exercise was beneficial. He inquired the experience of the Society regarding the injection of milk, which is said to excite stronger inflammation than other articles.

Mr. Kingdon mentioned, that he had never failed in curing hydrocele by the first injection of port wine. The generality of the members had not been so successful. Mr. Clifton considered the reason why the operation so frequently failed, arose from the employment of various kinds of injections; he thought that when the port wine injection was used more generally, the success was greater.

After some further discussion the Society adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, May 14, 1836.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Abscess in the Kidney—Priapism.

Dr. Johnson said, as they were discussing the subject of affections of the bladder, he would mention a case of disease of the kidney, in which the chief symptoms were referred to the bladder. He had attended for several years a gentleman who had lately died; for several years this patient had complained of nothing but uneasiness in the bladder with frequent desire to evacuate his water, always referring his complaints to the bladder. Three or four months since, the complaint assumed a more serious aspect; he could seldom allow the urine to remain one hour in the bladder. He suffered from no pain in the loins or neighbouring parts; the urine, on being tested, was ascertained to be albuminous, which led to the suspicion that there was disease of the kidney; consultations were held with several eminent surgeons. The patient became unable to evacuate his water, unless he got out of bed for that purpose, which he was continually obliged to do. The catheter was several times introduced, to see if any stone was present, but none could be detected; latterly, a muco-purulent matter had subsided in the urine.

About a month before he died, he was seized with a strange train of symptoms; he had extreme difficulty of breathing, fever, rigors, and intense thirst. The rigors continued daily; sometimes occurring as often as twice a day; he had also some cough; on examining the chest, the right side sounded very dull; respiration was considerably diminished, and towards the last, was entirely gone; he died labouring under these symptoms with delirium. On dissection, a large abscess was found attached to the right kidney; all the other urinary organs were healthy; this abscess had ex-

tended upwards, and had produced ulceration of the diaphragm; the right side of the chest had become filled with fluid, from the bursting of the abscess; the lung was compressed. The cause of the cough and the other phenomena was thus ascertained. He (Dr. J.) considered at first, when the symptoms came on, that the patient was suffering from hydrothorax; altogether it was a case of the most puzzling kind. Dr. J. inquired how the great irritability of the bladder could be accounted for; was it from sympathy with the kidney, or was it from the chemical quality of the water?

Mr. Quain had experienced in his own person, the very great irritability that an acid state of the urine could produce. When studying on the continent, he had been so irritable in the bladder, that he was one evening obliged to stand on the steps of a diligence during the whole night, as he could not retain his urine. The water, on being tested, was found to be very acid. He took alkalies, and lost blood, and was relieved.

Mr. Smith recollected a case somewhat similar to the one just related, in which some disease of the bladder, or stricture, was supposed to be present; the patient died suddenly, and after death a small calculus was found in the kidney; there was no inflammatory blush around it.

Priapism.

Mr. Chinnock related a case which had lately very much puzzled him; it was that of a gentleman in the middle period of life, on the nature of whose complaint a variety of opinions had been taken, but no remedy hitherto prescribed had been of any benefit. He appears to be free from any diseases of the urinary organs; his health is good. He is awaked twice in the course of the night with most severe and painful priapism, the first attack occurring about two A. M., the second about five A.M. He is a man of remarkably temperate habits; he is a widower; and the affection has originated since the death of his wife. It is rather curious that he has no desire for venereal intercourse; connexion with the other sex has been tried as a remedy, without any good result.

Dr. Johnson recommended in this case, that counter-irritation should be applied down the spine by the tartar emetic ointment, and large doses of camphor. The camphor, Mr. Chinnock said, had been used.

Mr. Bird said that he had seen cases of a similar kind, which depended on the quality of the urine. Dr. Bright had thrown out a hint to him (Mr. B.) that it was possible the acrid urine passed in the urethra, over the portion from whence the semen was excreted; it might by that process have produced irritation; whereas in diabetes, where the urine was copious, and albuminous, there was no desire of venereal intercourse. He (Mr. B.) considered in Dr. J.'s case it was clear that the irritation, which existed in the bladder, was from sympathy with the kidneys. He did not hold, however, that opinion correct which looked upon the presence of albumen in the urine as an infallible test of diseased kidney. Albumen might be found in that fluid under other circumstances than when there was disease in the kidney. He had, about two years since, been requested to see a patient occasionally, who referred all his complaints to the region of the right kidney; he had excessive pain there, and he was frequently relieved by discharges of pus from the urethra; the youth died, and it was expected that an abscess would have been found in the right kidney; but, instead of that, the examiners of the body were surprised to find that there was no kidney at all on the right side; that on the left was much larger than natural, and a large abscess was found in it. He considered Mr. Quain's symptoms to have depended on the presence of phosphate in the urine; he had seen like cases from the like causes.

Saturday, May 21st, 1836.

DR. ADDISON, PRESIDENT.

Pains about the Shoulder-joint—Advantages of the Prone Position.

Mr. Quain mentioned some rather curious cases of pain occurring in the neighbourhood of the shoulder-joint; in which local abstraction of blood, counter-irritation, and other means had failed to relieve; but which, in some instances gave way to cupping over the spine on a line with the affected part. The pains in these cases appeared to be too acute, to indicate deep-seated inflammation—there was great tenderness on pressure. The pain was of a peculiar kind, in in some persons being of a gnawing character. There did not seem to be any cause for these affections; the pain in many instances, extended from the shoulder-joint down the front of the arm; there were no constitutional symptoms present. Blistering and leeches to the part, appeared to rather increase than relieve the pain. Dr. Brown had seen such cases dependent on disease of the heart.

Mr. South had seen an instance of a like character, arising from great muscular exertion in a coachman. He was inclined to attribute it to chronic inflammation of the fascia.

After a few more observations, Mr. Verral was called on for his paper on the Advantages of the Prone Position in Spine Diseases, and other affections. (The paper will be found in another part of our journal of to-day.

Mr. Chinnock, considered that in cases of burn, and other injuries or diseases of the soft part of the back, that the prone possition would be a most important addition to practice, in affections of the spine. He did not see any advantage it had over the supine position.

Mr. Quain considered that it was possible that the prone position might assist the return of nervous blood from the affected part, in the early stages of diseases of the spine, and thereby do great good.

CASE OF POISONING BY CARBONATE OF POTASS.

Instances of poisoning, by means of carbonate of potass, are sufficiently rare to render the following case at once curious and interesting.

A girl, three years old, thinking she had found some beer in a vessel which was left within her reach, immediately put it to her mouth, and drank off a quantity of fluid, which proved to be carbonate of potass, liquified by deliquescence. An hour after this act, she was taken to Dr. Cox, with her lips, tongue, and fauces swollen: the respiration very laborious, accompanied by very strong *râles*, the pulse small and frequent, and the skin cold. An emetic was instantly ordered, a large quantity of lemon juice in water administered as speedily as possible, and afterwards a blister applied to the epigastrium. No vomiting ensued, but the child continued to sink, convulsions followed, and she died in twenty-four hours.

Antopsy fourteen hours after death.—The mucous lining of the lips, the tongue, and the fauces, was gangrenous, and the cellular tissue of these organs completely softened; on opening the larynx, the glottis was found to be contracted by a vascular injection, and a considerable extravasation into the submucous tissue. The trachea and the lungs appeared healthy; the œsophagus and the stomach were studded with spots of a chocolate colour, while the mucous membrane seemed to be partially wanting, or here and there raised into distinct knots; but upon a more careful examination, the membrane was discovered not to have been destroyed, and that the knots were formed by vascular injection underneath the membrane. The other organs appeared perfectly natural.—*Annales de Chimie Medicale.*

OXIDE OF ZINC AS AN ANTIDOTE TO THE POISONOUS EFFECTS OF BELLADONNA.

Accidents attending the use of Belladonna have been pretty numerous, as the instances related by Ferrein, Boucher, Bulliard, Gaultier, and others have testified; wherefore it becomes of no mean importance to ascertain, whether, as recently announced by M. Bonifacio, Chiovitti, in a Neapolitan journal, the oxide of zinc may be advantageously employed to counteract the poisonous effects of this medicine.

For the purpose of soliciting the assistance of veterinary surgeons, to determine this point, the case is related of a mare, belonging to the Marquis of Spinalto, which took, by some strange mistake, half an ounce of the extract of belladonna. Recourse was first had to glysters, camphorated spirits, &c. Dr. Chiviotti being summoned, directed the usual antidotes to be administered, but without any benefit, the poison having been already absorbed. The nervous system was seriously affected; there was *subsultum tendinum*, trembling and spasmodic actions of the muscles, and impeded respiration. The animal could not stand, and the intestines ceased to perform their functions. In a case so urgent, the Doctor ordered three drachms of the oxide of zinc to be mixed with a small quantity of bran, and to be given four times during the day. Twelve hours had scarcely elapsed, before the nervous symptoms had completely disappeared, and the mare manifested a very remarkable improvement. Every thing proceeded satisfactorily up to the fifth day, when the nervous symptoms reappeared, and were again removed by a scruple dose of the same oxide, after which the animal gradually advanced to a perfect recovery.—*Annales de Chimie Medicale.*

BOOKS.

Pathological Observations on the Diseases of the Placenta. Part I. Congestion and Inflammation. By James Simpson, M.D. (Read before the Medical Society of Edinburgh). 8vo. pp. 47.—To be continued.

This is an erudite and valuable essay on a class of diseases little known though common in this country.

Lectures on the Nervous System and its Diseases. By Marshall Hall, M. D.

NOTICES TO CORRESPONDENTS.

F. S.—Our last Number explains a part of our correspondent's inquiry, and as to the rest, he must be aware of the vast expense of accomplishing what he desires.

A Student at Charing Cross Medical School.—The letter is too personal for our pages.

A Student of the Aldersgate Street School.—Dr. Marshall Hall is, we believe, pledged to lecture in the vicinity of the school.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4. Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

MANCHESTER ROYAL INFIRMARY

THE

London Medical and Surgical Journal.

No. 19. SATURDAY, JUNE 4. Vol. I.—(1836).

LECTURES
ON
THE THEORY AND PRACTICE OF MEDICINE,

BY DAVID UWINS, M.D.

Delivered in Greville Street, 1835-36.

LECTURE XII.

The Subject of Nervous Disorders, concluded.

All the facts and circumstances alluded to at our last meeting, with volumes of others that might be adduced of a similar kind and bearing, may serve, in my judgment, to teach us two very important lessons. They may instruct us respecting the inefficiency of that pathology and practice which should be regulated by no other views than those of vascular irritation, or congestion in blood-vessels, and they ought, moreover, to keep us constantly alive to the remarkable subordination of the physical to the mental part of the frame—facts and principles, these, in medical experience and theory, which it seems to me we are occasionally, at least, too much inclined insufficiently to appreciate. If it were nothing but the importance which the knowledge and attention now adverted to, would teach of manner in the practice of medicine, that itself, in its application, would be found of no mean moment. I should, I hope, be one of the last to recommend hypocritical charlatanism and assumption of superior powers, but when we find that the assumption itself has an effective influence, it ceases to be a dishonourable or immoral act. If, then, we wish for success in the administration of medicine, let us, in prescribing it, be careful to join a mildness of manner with a confident deportment. This is not, as I have this moment said, to assume a virtue which we have not, but lawfully to act upon the susceptibility of our patients, towards assisting, by every means in our power, *their restoration to health.*

While I am upon this head, it may not be improper to state a single example of the influence of imagination upon the actual physical condition, which is furnished us by Dr. Haygarth, in a pamphlet published on the subject of Perkins' Metallic Tractors, in order to shew that we might admit all that these pieces of metal laid claim to, in respect of actual effect, and yet, notwithstanding, maintain the fallacy of their claims to any actual virtue in and of themselves.

It is necessary to premise, that in the trials recorded, pieces of stick and iron were employed, while the patients invariably supposed themselves to be under the influence of the genuine metallic tractors. The case I have selected was transmitted to Dr. Haygarth by Mr. Smith, of the Bristol Infirmary, a man of unquestionable credit and veracity. "Edmund Williams," says Mr. Smith, "applied to me with an obstinate affection of the urinary organs (stillicidium urinæ). The man was a poor feeble subject, and seemed to be impressed with the idea that he should never recover, that nothing would be of service to him, yet he was willing to try anything. In one minute after the points of the wooden tractors had been drawn in various directions about the pelvis, he said, 'I begin to feel something jumping in my inside,' and in three minutes and a half the determination of blood to the capillaries of the skin was evident, giving him a sensation of warmth to which he had long been a stranger. On the 24th, he reported that his hips had been unusually comfortable and warm; this induced me to persevere, especially as the patient himself had become less sceptical as to the powers of the tractors. The gentleman who had assisted me having borrowed the pieces of stick, I was obliged to make use of two-penny nails, which had before been employed on a similar occasion; these were disguised with red sealing-wax, and, on this account, had the dignified appellation of *rouge et noir.* In fact, it was often necessary to play the part of a necromancer, to describe circles, squares, triangles, and half the figures of geometry upon the part affected with our feigned tractors. During all this time we conversed, in the patient's hearing, upon the wonderful discoveries of Franklin and Galbari, laying much

stress on the power of metallic points attracting even lightning, and conveying it to the earth harmless. To a more curious farce I never was witness; we were almost afraid to look each other in the face, lest an involuntary laugh should remove the mask from our countenance, and dispel the charm. But to return to my patient. In one minute he felt 'a smarting in his loins, and warmth of the skin,' in two, 'heat increased,' in four, the operation ceased, when he said 'the skin was very warm.' A bystander asked if he thought himself mended? He replied, 'he would soon answer his question;' and upon sitting down suddenly, exclaimed, 'yes, I am better.' It was demanded how he knew it. 'When I used to sit down,' he replied, 'there was always a spirt of water thrown from me, but now I can prevent it.' The experiment was two or three times repeated, and with the same result. In fact, the patient actually regained the power of retention, in a great measure, afterwards."

On this case, the reporter of it makes the following remarks:—

"It may be asked what *physical* alteration could so suddenly have taken place in the muscular fibres of the sphincter of the bladder, that, from a state of pallid relaxation, they could be again endowed with the power of performing their office? Permit me, in my turn, to ask the inquirer what is the primary cause of the purple blush which instantly overspreads the cheek of the guilty when accused? Would it be answered, because the vessels are suddenly distended with blood? *that* will readily be granted as the immediate cause, but it is the power which directed that operation which I wish to be demonstrated. We shall be equally involved in the same dilemma, but, the facts being admitted, our inability to account for them signifies nothing."

Such cases as this, gentlemen, lead to more important inferences, when properly appreciated, than that for which the experiments were principally instituted, viz., the detection and derision of what was assumed to be quackery; they are mainly to be valued from the use that may be made of them in regular, and legitimate, and conscientious endeavours to restore health; they serve to evidence *that* very important principle in the theory of living actions—that mental stimuli are by no means limited in their operation to the sentient organization and faculties—but that they display an agency decided and demonstrative, upon even the minutest fibres entering into the composition of an animal body.

"It is worthy of observation," says Dr. Cogan, who has written elegantly on the passions, "that in every powerful exertion of the imagination some change takes place in the body, corresponding with its nature. In a keen appetite, upon the thoughts of some savoury viand, the salivary glands are stimulated to a secretion of saliva as preparatory to deglutition (mouth watering, proximate cause and effect, in alliance with the excitant). We feel ourselves firm, collected, elevated, at the representation of the firm, heroic conduct of others. The blood thrills in our veins, and the skin corrugates at the description of anything peculiarly horrible; and, under the strong impression of fictitious danger, the attitude of our bodies attempts to evade it. Full confidence in the mystic power of another places the whole system in a situation most favourable to the effects which the object of his confidence undertakes to produce. This will explain much of what is real in the pretensions of magnetizers, and the exaggerating disposition of both operator and patient will serve to explain the rest."

It is scarcely necessary to say, that in collating and comparing the above cases and remarks from pathological and philosophical writers, I wish to impress upon the mind of the medical student, that while it is his duty to seek every opportunity of investigating morbid structure, in connexion with morbid action, such is the nature of the organized body, and such its connexion with external circumstance, that a great deal goes on in the inmost recesses, so to speak, of the frame, of which no possible explanation can be given, if we expect it from the knife of the morbid anatomist, or from one who is determined that every mutation of thought and feeling must be accompanied by some visible or tangible change in corporeal structure. I wish it further to be understood, that the alteration of structure which *post mortem* investigation unfolds, is often rather the effect than the cause of the original sickness; or that even if such alteration of structure or visible disorder have been the means of breaking the thread by which vitality is connected with organization, previously deranged workings of a general kind, rather than the malady specifically and nosologically pointed out, shall have been the radical source of that incidental variation in structure from the structural standard of health. But, on the other hand, let us always be alive to the probability of mere structural derangement or topical lesion, being equal to an immensity of constitutional malady; and let us feel grateful to such pathological patience and discernment as that evinced by Dr. Abercrombie and others, in their endeavours to place medicine as much as possible upon the footing of demonstrable, or, at least, physical science.

Before I bring to a close these general intimations, which I proposed to give in a preliminary way, respecting the three leading features of life, viz., circulation, absorption and sensation, together with the tendency

displayed by each to peculiar aberration, I must be allowed to introduce the following remarks, from an acute observer, and an elegant writer, (my friend, Dr. Stewart), which are in complete harmony with all I think, and all I feel on these interesting points.

"In all departments of knowledge, the nomenclature," says Dr.S., "must be as the information. Where one is deficient, the other will be vague. In medicine, it may be for a long time equally easy to object to a general term, and difficult to replace it by another free from just objections.

"All diseases, nay, every sort of injury, will, on strict consideration, be found to affect the mind. *Some difference in the inward state* will be correspondent to the *slightest external difference.* But, in many instances, the bodily change is so much more permanent and considerable, that this is overlooked. In a pleurisy, the history of the disease, and of its treatment, is thought to be fully comprehended in an account of the pain, of the pulse, of the breathing, of the number of breathings, and so forth. In this, and other febrile affections, it is deemed sufficient just to note whether delirium occurs, or at most, to mark whether it be a delirium of the low or the frantic kind. Again, the parts concerned in many diseases, have been so often examined by dissection, that the physician can read the state of the interior, as plainly as if the body were a book, the alteration in organs accessible to sense, and the patient's account of his feelings serving him for letters.

"In nervous complaints, every thing is different. Changes of the organization, it is true, have been sometimes detected in nervous complaints, *but then the same symptoms equally appear when no such changes exist;* so that here morbid anatomy is at present of little or no use, in pointing out the correspondence between the obvious and hidden workings of the machine. The intellectual faculties bear a considerable part in these mysterious, and often terrific scenes. The members, long since reduced, under perfect obedience to the will, throw off all control. In ruder ages, it was a general persuasion that the furious agitations which sometimes take place, were still voluntary, but proceeding from the will of a malignant spirit who had possession of the patient, and managed his members as the master of a puppet-show does those of his diminutive representatives of man*. Among the lower ranks of society, some are still haunted by the same pernicious belief. For these irregularities of thought, feeling, and action, which constitute the essential character, if it be possible to assign the essential character of this class of disorders, we cannot hope to account without some insight into the laws of the human mind."

Having, then, laid before you what I consider important in reference to the onset and essentials of disorder, I will now embrace the opportunity afforded me, of pointing out a few very general lineaments of functional and sympathetic, as opposed to structural or tangible derangements, in order to put you on your guard against the deceptions of nosology, and the masked nature of some diseases, which demand a minute recognition of their apparent semiology. How much, for example, might it disgrace a young practitioner, were he to judge of, and prescribe for a pulmonary derangement, as if it were phthisical, asthmatic, or bronchial; when, perhaps, all the difficulty of breathing, and other circumstances from which pulmonary suspicion had been deduced, were traceable to some nervous irritation implicating the muscles connected with the respiratory process.

Distinctive marks, or diagnostic peculiarities, it will be my duty to point out, in detailing individual disease; and you are therefore to look upon the hints now about to be given, in common with every thing else, hitherto taught you, as merely general outlines, afterwards to be filled up into mass, and drawn out into picture.

In the first place, the pulse, of what would be considered a nervous ailment, although it may be very quick, is not regularly, and without intermission so, as is the case when this quick pulse is an evidence of internal inflammation. It is, too, more under the influence of immediate excitation, than is an inflammatory pulse. If your coachman knock hard and loudly at the door, you may sometimes set down ten or twenty beats in a minute to this score. Always, then, feel your patient's pulse, (especially if there be any doubt about what it is the index of,) both the first and the last thing you do. A nervous pulse, however it may be beyond the mark in celerity, wants that wiryness, or hardness, which you will recollect I before mentioned, as characteristic of the inflammatory state. An intermittent pulse is very common, in convalescence from acute disease: it seems to arise from the functional condition of the heart having received a shock from the

* It is a curious and important fact that, in the present day of comparative unbelief, we do not find nervous ailments marked by the morbid force and malignant combination, which were their conspicuous features in by-gone times. Is not this change traceable to what Dr. Stewart hints at in the above paragraph? Demoniacism is now held in comparative derision; and it is only on occasion of outpouring of the spirit upon fanatical religionists, that violent contortions take place, except in tetanus, epilepsy, chorea, and other disorders which have a manifestly physical origin.

hurry and commotion of the morbid processes it often frightens young practitioners into the apprehension of organic disorder, an apprehension which is not a little fostered by the modern notions of authors on cardiac irregularities, which are, in a sort of *con amore* spirit, treated of as stethoscopical and structural.

The fears of your patients are often to be hailed rather as happy omens, than as evidence of disorder. Dr. Reid mentions a curious case of an hypochondriacal lady, having lost all her nervous ailments, immediately upon its being announced to her that her disorder was an aneurism of the aorta. Now that the mind had something tangible to dwell upon, "she screwed up her courage to the sticking point," and no longer thought she had asthma, and consumption, and a whole host of other diabolical disorders. From such cases as this the student may infer both the non-existence of apprehended ailments, and the necessity and propriety, occasionally, of so far falling in, as it regards seeming, with his patient's fantasies, as, by implication, to allow their reality. The qualification with which these pious frauds may be committed, I have already referred to in the present lecture.

In organic, as distinguishable from mere nervous malady, the countenance for the most part is a faithful index. There is a fixedness and a sharpness of feature, and a hollowness of cheek, and a mournful gloom over the eye in the victims of a wasting internal complaint, that is very different from the changing countenance of the mere hypochondriac, however this last may be occasionally characterised by a melancholic aspect. I have no doubt that the features of the great Napoleon were permanently altered so soon as his general perturbation of mind settled down into a scirrhous condition of the stomach*.

In mimositic or merely sympathetic ailment the attendant fever has more of what we should call a nervous than a hectic character; and the sweats which terminate the paroxysms are more generally diffused over the body. I have already, indeed, remarked to you that in phthisical perspirations the head, neck, and chest are the parts especially implicated during perspirations.

The tongue is often clean and clear in disorders which have affected structure; this is remarkably the case in consumptive ailments, insomuch that our opinion might be very fallacious should we infer a good state of things from the circumstance of a tongue being clear from fur. This fur on the tongue is, indeed, judged of improperly in other disorders; it is not seldom a mark rather of nervous or head affection than of stomach derangement. I rise in the morning drowsy and dull, with a thick crust on the tongue, I souse my head and chest with cold water, rub my skin, and thus refreshing myself, the tongue shall soon assume a very different appearance, without taking a particle into, or ejecting a particle out of that all-potent organ the stomach, about which so much that is very bad, as well as so much that is very good, has been broached during the few preceding years.

In sympathetic and merely nervous disorders the breath is often very unpleasant in its odour—and that in persons who, but for the derangement in question, have their pulmonary exhalation free from any thing at all unpleasant. This offensive breath is not necessarily present in organic ailment.

When much of flatulence accompanies pain, such flatulence may be taken as an index of nervous rather than inflammatory disorder. *Ubi flatus nulla inflammatio* has, indeed, been laid down as an axiom; but the maxim cannot be admitted without much qualification and exception.

Nervous pains are more fugacious, organic ones more fixed. And in the former they sooner, as it were, come to the surface. A great deal of abdominal inflammation may be going on in an insidious and masked way, and unless you press firmly and hard upon the abdomen, the patient will not flinch, while he or she will call out loudly and fearfully upon the smallest touch—the pain or sensibility being merely spasmodic or nervous. This I consider an exceedingly important point of diagnosis.

There are shivering feelings very often attendant upon nervous ailment, but these are very different from those decided rigors which I have before pointed out to you as of high moment to recognise while you are anxious to ascertain whether the inflammatory have passed on into the suppurative stage, the parts implicated being internal and out of the reach both of vision and touch.

Lastly, I may state that progressive emaciation characterises organic disorder for the most part—while, in merely nervous derangement, the body is at one time fatter and fuller than it is at another. It is curious, indeed, to observe how very various in respect to flesh, and even firmness of fibre, the condition of a nervous individual will prove even in the course of a few hours.

I have now, gentlemen, only a few words

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* In my work on Disorders connected with Indigestion (Renshaw, Strand), I have submitted whether, had Buonaparte's career of ambition not been arrested, and his body not been confined while his spirit was unconfineable; had he, in other words, continued conquering and to conquer, his organic complaint might not have been kept off, and *nervous* instead of structural malady continued his portion. He was, indeed, subject to violent paroxysms of epilepsy, of which we no longer heard after he had been some time a prisoner in St. Helena.

to add on the subject of physical remedies for nervous disorders. And on this topic, it is difficult to avoid being either too concise or too diffuse. The fact is, that almost all powers act primarily upon the sentient and fibrous part of the organization; and that it is only by a differently proportioned dose that drugs apply themselves to the vascular and imbibing structures; foxglove, for example, is decidedly a remedy for the diseased condition of the absorbents; but small doses of it have at times almost as decided an influence upon the nerves; and even in some cases of maniacal fury very considerable quantities of this curious medicinal will often tell with beneficial result towards diminishing the violence of the paroxysm.

The vegetable stimuli, indeed—stimuli, if we judge of and determine their nature upon the Brunonian rationale—of their action—may, many of them, in very small doses so far influence the nervous susceptibility, as not only to prove valuable as nervous medicines, but as medicines which will so dispose the motive and sentient impulses as to prevent the ailment from passing into a more complicated condition. Aconite, belladonna, and many others of this class are employed by those individuals who advocate the infinitesimal practice as substitutes for blood-letting; and, once allow the assumption of these individuals in respect to the agency of minute doses, you admit also their corollaries. I do not wish to commit myself on these points beyond that of saying I have employed the articles in question in, comparatively to general practice, very small quantities, and have been surprised at the success of my trials. There, again, the mineral medicinals, upon a very reduced scale as it respects quantity, prove often so operative as to change a morbid condition of nerve into a healthy one. Modern medicine will scarcely allow that dyspepsia can exist without an inflammatory state of stomach. I know that it can, and does establish itself as mere adynamic disorder; and, I also know by experience that very small doses of subnitrate of bismuth will restore stomach or peptic energy, which no bleeding, general or local, would effect. Let me not be misunderstood; I do not condemn blood-letting, or cupping, or leeches, even as anti-nervous measures; but I do condemn the principle, and the practice resulting from the principle, that all derangement is vascular, and all remedy depletion.

Steel is rather an absorbent than a nervous medicine; but there are some forms of it which apply more especially to those modifications of disorder to which the term nervous would rather imply than lymphatic or vascular. The ammoniated iron will, not seldom, prove exceedingly efficacious as a nervous tonic; the wine of iron also, in many instances of atonic disorder which do not engender or connect themselves with tabid or hectic wasting, will tell beneficially, beyond the celebrated Griffith's mixture; which last is more particularly applicable to hectic and lymphatic derangement. These hints, however, must be taken as mere hints; and it is only while I am dwelling on specific and particular disorder that I can speak with much precision, or without much qualification, on the various forms of various remedies.

All the ætherial and volatile stimuli have been brought into use in their application to nervous and spasmodic affection; but the good of these is at best but temporary; and, if continued for any great length of time, they are apt to induce a habit of dependence upon them; they are a sort of medical drams, which ought, therefore, principally to be limited to extreme cases. It is, by the way, surprising to witness the occasional force which these excitants exhibit under some forms of acute disorder, and how they seem, as it were, to expend their influence upon such disorder without much effect upon the frame generally. I have known nearly a bottle of brandy drank in a very short time by persons who have been attacked with gouty spasms, and, while it has subdued these spasms, it has not occasioned the most distant seeming of intoxication. I remember seeing a gentleman who was seized with abdominal spasms to a most violent degree, drink off sulphuric æther like so much water, in a dose, indeed, which under ordinary circumstances would have produced suffocation; and the extent to which opium will be taken with impunity under tetanic disorder, a disorder afterwards to be enlarged on, is truly astonishing.

How far all these facts and influences are reconcileable to the Brunonian or Hanhermannic hypothesis, I cannot now stay to inquire; let the facts be received as important, and of much practical moment, were it only that they prove *that* doctrine to be any thing but correct, which in every malady finds an organic source—in every pain an inflammatory origin; and let them further be retained in recollection by the young practitioner, for the purpose of convincing him that the nerves are, *as* nerves, obnoxious to abstract and terrific derangement, while no lesion or want of integrity of structure shall be ascertainable.

Our next topic, gentlemen, according to the proposed division of the course, comprises affections of the head and the encephalon.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(Illustrated with Numerous Plates).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XVIII.

Reproduction of Organized Beings.

The mysterious function of reproduction in all organized beings, has occupied the mind of man from the earliest age to the present, but all the efforts and researches of ages have been unsuccessful in explaining it. We are ignorant of the manner in which life begins and ceases. Most physiologists it is true, have only considered this question as regards the human species and some of the inferior animals; but, it is evident, that the generation of plants and polypi, of the oviparous and viviparous animals, and of all that enjoy life, belong essentially to the same principle; because nature is always conformable to herself in all her works, and no one can admit several causes for the same effect. It is therefore necessary to have recourse to some general principle. There is but one primitive generation; and this emanates from the Creator. It will appear by the sequel, that all other theories hitherto offered, are unsatisfactory.

The conclusions of Pythagoras, Empedocles, Hippocrates, Aristotle Galen, and all their eminent successors to the time of Harvey, were inconclusive. They fruitlessly attempted to explain the generation of plants and animals, with a view of illustrating that of the human species. But the observations and researches of the celebrated Harvey, led him to the conclusion now almost universally received, that all animals and plants were generated from an egg or seed—*omnia ex ovo*. This was confirming the opinion of Fabricius ab Aquapendente, that most animals, both terrestrial and aquatic, were produced by oval generation. "Amplissimam autem esse formationis fœtûs ex ovis contemplationem, ex eo patet, quod maxima animalium pars ex ovo gignitur. Nam ut insecta ferme omnia, et imperfectiora omittam animalia quæ ex ovo fieri, sensui apparet; ex perfectioribus quoque maxima pars ex ovis gignitur. Ad hunc censum refert, pennata omnia; pisces quoque (præter sola cetacea), item crustacea, testacea, et mollia omnia; ex terrestribus reptilia, multipedia, et serpentia omnia; atque inter quadrupedia omne lacertorum genus." Harvey advanced farther, not only by including all animals, but all vegetables. He observes, in the first exercitation of his great work on the Generation of Animals, already mentioned, "Nos autem asserimus (ut ex dicendis constabit) omnia omnino animalia, etiam vivipara, atque hominem adeo ipsum ex ovo progigni primosque eorum conceptus, è quibus fœtus fiunt, ova quædam esse; *ut et semina plantarum omnium*. Ideoque non inepte ab Empedocele dicitur, *oviparum genus arboreum*." (Arist. de Gen. Animal, lib. 1. c. 20) *. Linnæus subsequently based his splendid classification of plants according to the sexual system, and completely established the truth of the conclusion as regards the function of reproduction, in a great part, if not all, of the vegetable kingdom—*omnia ex ovo*.

* Exercitationes de Generatione Animalium, &c. Exercitatio 1.

The ancients maintained that the ovum was round, as the Creator made the world of this form, and that all animals were round at first (Aristotle, Hist. Animal, lib. 3 c. 1 ; and Vegetables, Harvey, op. cit. Exerc. lxii). In tracing the function of reproduction in organized beings, we must ascend from the most simple to the most compound of its processes ; and finally attempt to elucidate its complicated mechanism in the human species. It will therefore be necessary to give a brief outline of the generation of plants and animals, previous to the history of this function in human beings.

A complete history of the generation of the various species of plants and animals, is beyond the limitation of these lectures, and would fill a volume ; I must, therefore, confine myself to a description of a few of them, as classified by modern naturalists : plants, zoophytes, insects, crustacea, worms, mollusca, fishes, reptiles, and mammiferæ, at the head of which stands the human species.

Reproduction.—Reproduction is the function peculiar to living or organized beings, which enables them to perpetuate their species. Organized or living beings are plants and animals, every one of which derives its origin from a being exactly similar to itself, and is produced by generation. It is from this function that the life and organization of all animated beings emanate.

The inorganic bodies do not engender ; they have neither races, families, nor species ; they do not receive any thing from bodies like themselves, and always remain of the same primitive nature.

All matter in the sublunary portion of the universe, is divided into two great kingdoms, which comprise all beings and productions. 1. Organic bodies, which are plants and animals ; 2. Inorganic bodies or inanimate matter, which is the base of the terrestrial globe, of fossils, water, and air. The first or animated kingdom is composed of beings which are born, nourished, developed, and which engender and die. An animal and a plant succeed each other without ceasing—a mineral or a stone is contemporaneous with all ages. As it cannot live, it cannot die. All its parts subsist without dependence on each other, and obey the physical, chemical, and mechanical laws of inorganic matter.

A plant or an animal is composed of parts or organs, which cannot subsist separately. The principles of its existence, and the germs of its destruction, are in itself ; but a mineral does not possess the principles of individual existence ; it subsists by the laws of inorganic matter, while all its changes or alterations do not emanate from itself, but depend upon the external powers that surround it.

Reproduction is the force of life or organization, the source of communication of the living principle. The vivifying power of organic beings is an emanation from the Divinity ; " in Him we live, move, and have our being :" *in Deo vivimus, movemus et sumus ;* and on Him also depend the laws of inanimate matter.

" Superior itaque ut diximus," observes Harvey, " et divinior opifex (quam est homo) videtur hominem fabricare et conservare : et nobilior artifex (quam gallus) pullum ex ovo producere. Nempe, agnoscimus Deum, creatorem summum atque omnipotentem, in cunctorum animalium fabrica ubique præsentem esse ; et in operibus suis quasi digito monstrari : cujus, in procreatione pulli instrumenta sint, gallus et gallina. Constat quippe, in generatione pulli ex ovo, omnia singulari providentiâ, sapientiâ divinâ, artificioque admirabili, et incomprehensibili, exstructa ac efformata esse. Nec cuiquam sanè hæc attributa conveniunt, nisi omnipotenti rerum principio ; quocunque demum nomine id ipsum appellare libuerit : sive *mentem divinam* cum Aristotele ; sive, cum Platone, *animam mundi,* aut, cum aliis, naturam naturantem ; vel, cum Ethnicis *Saturnum,* aut *Jovem ;* vel potius (ut nos decet)

Creatorem ac *Patrem* omnium quæ in cœlis et terris; à quo animalia, eorumque origines dependent, cujusque nutu, sive effato, fiunt et generantur omnia." (Op. cit.) "Omnia vero corpora naturalia, summi ejus Numinis et opera sunt, et instrumenta." (Op. jam. cit).

The Divine Spirit of the Universe was recognised by the sages of all ages and nations, and also by the poets.

"Principio cœlum, ac terras, camposque liquentes,
Lucentemque globum Lunæ, Titaniaque astra
Spiritus intus alit, totamque infusa per artus
Mens agitat molem, et magno se corpore miscet.
Indeque hominum pecudumque genus, vitæq. volantum
Et quæ marmoreo fert monstra sub æquore pontus.
Igneus est ollis vigor, et cœlestis origo
Seminibus."

VIRGIL. *Æneid*, vi.

One of our sweetest poets has sung this sentiment.

* * * * "What but God?
Inspiring God! whose boundless spirit all,
And unremitting energy, pervades,
Adjusts, sustains, and agitates the whole."

THOMSON. *The Seasons.*

Life, organization, and reproduction, cannot be separated without their destruction. No inorganic body is susceptible of organization, of life, or reproduction. Every plant and animal possess these properties; they have received them from their parents, and transmit them to their descendants. The more powerful is the generative power, the more energetic is life; and the more life is communicated by generation, the more it is abridged. It is for this reason that amorous excesses impair it, and accelerate its annihilation. Plants and animals reproduce because they are destined to die; but minerals do not possess this power, because they are indestructible. Thus we observe that all organized bodies are destructible, and reproduce their species. They die, and become the nutriment of successive generations. The bodies of men entombed in the earth, furnish abundant nourishment to worms and plants. These in their turn become the food of other species, so that all change to change again. They die but to live under other forms. The brilliant flower enriches itself with nutrition from the dead matter beneath the root from which it grows. The function of reproduction is therefore peculiar to organized beings, or to the animal and vegetable kingdoms.

The age of life in which generation can be accomplished, is from puberty to senescence, and this is the most energetic period. This faculty is possessed by all animals from the lowest to the highest. It is in the vigour of life that individuals produce the most robust offspring; but there are some few exceptions. The love of offspring is implanted in all animals, and has been characterised the generative Venus, by the ancient poets.

"Illecebris tuis omnis natura animantûm
Te sequitur cupide, quò quamque inducere pergis."

LUCRETIUS, *De Rer. Nat.* lib. i.

Generation is the same to all—it conquers all—*amor omnibus idem*—*omnia vincit amor*. Nature has given pleasure to all animated beings for their individual propagation.

"Behold," says the eloquent Virey, "what pomp, what joys, what glory, and what magnificence, are prepared by nature for the marriages of plants and animals! How the lion and the bull pride themselves on their strength! the antelope on its figure! the peacock and swan on their plumage! the fish on its silvery coat, and on the splendour of the gold and brilliant appearance

of its body! How the butterly expands its diamond wings; how the flower displays its charms to the rays of Aurora, enjoys in silence, and drinks the pearly drops of the dew! All is the radiance of beauty in nature; the earth, covered with verdure, resounds with accents of joy and sighs of pleasure; all exhale love, all search for it and enjoy it—in a word, it is the common festival of beings. But, in a short time, the flower fades away, and languishes on its stem; the butterfly declines and dies; the lion and the bull, as if fatigued by long contested fights, search for peace and retreat; and man himself, overcome with languor, retires in silence, full of recollections and sadness, seeing the approach of death, which presses its iron hand on all that breathes." (Dict. des Sciences Med. Art. Generation).

Reproduction consists in the growth of an ovum, egg, germ, seed, or embryo in a living part, from which it is separated when capable of independent existence. The females of plants and animals supply the germs, the males secrete a fluid which, placed in contact with them, fecundates or vivifies them.

The modes of generation in all organized beings may be reduced to three. 1. Oviparous, or those that in general engender by eggs, or ova, as reptiles, fishes, insects, certain worms, birds, plants in general; 2. Viviparous, those that suckle—cetaceæ, quadrupeds, and the human species; 3. Gemmiparous, or those that engender by prolongations, sections, or offsets, as zoophytes, pôlypi, infusorial animalcules, and plants that are not annual. Plants and animals must acquire perfect development before they can reproduce their species. It is at the period of puberty that they acquire an excess of vitality which endeavours to communicate itself externally. This epoch is, as already stated with respect to the human species, accelerated by heat, nutriments, &c., and it is equally affected by these causes in the inferior animals and plants. Organized beings have three periods of life—youth, the age of generation, and senescence, or the epoch of sterility. The human species often abuse the generative function; they consume their vitality, exhaust themselves, and often induce premature old age or death. It is also a fact attested by Harvey, that some birds destroy themselves in the same manner. (Op. cit).

The puberty or flowering of plants occurs at a certain season, in which the generative function is most exerted by animals; this is spring, so graphically described by poets, philosophers, and physiologists.

"Vere tument terræ, et genitalia semina poscunt.
Tum pater Omnipotens fœcundis imbribus æther
Conjugis in gremium lætæ descendit, et omnes
Magnus alit, magno commistus corpore, fœtus.
Avia tum resonant avibus virgulta canorus;
Et venerem certis repetunt armenta diebus."

VIRG. *Georg.* ii.

Truly has this poet sung: "In spring the lands swell, and demand the reproductive seeds. Then the omnipotent father Æther descends in fructifying showers on the bosom of his joyous spouse (the earth) and great himself, mingling with her body, nourishes *all* her offspring. Then the shrubs resound with tuneful birds, and animals reproduce at certain times."

Aristotle had also eulogised spring as the genital season of plants and animals (De Gen lib. 2. c. 10), and Harvey thus described this season:—"Ideoque vere vigent, vernantque omnia; (appropinquante scilicet Sole, qui communis pater est, et genitor; vel saltem summi Creatoris in generatione immediatum et universale instrumentum) non solum plantæ sed etiam animalia: nec minus illa, quæ sponte proveniunt, quam quæ maris fœminæque mutua opera progenerantur. Tanquam adveniente nobili hoc astro, de cælo delaberetur *alma Venus,* Cupidinisque *Charitumque choroslipata;* cuncta

viventia, blando amoris œstro ad perennitatem sui existimularet. Vel, (ut est in fabulis) quasi eo tempore *Saturni* genitalia in mare projecta, spumam excitarent, indeque nascitur *Aphrodite*. Nempe, in generatione animalium, *superat* (ut Poeta ait) *tener omnibus humor*, spumant, turgentque semine genitalia." (Op. cit.). The sun and man generate man, because at the approach and recession of the sun follow spring and autumn, in which the generation and destruction of animals happen. Aristotle held, "Sol et homo generant hominem;" but he ought to have extended his notion—"spring and generation are not confined to the human species." Let us hear the philosophical Virey on this season:—"When the vernal sun sheds the spirit of heat and life in the atmosphere, the earth ferments and covers itself with the varied productions, the tree shoots forth its buds, the plant expands its flowers, the benumbed insect revives and seeks its kind, the bird calls its species on the solitary branch, and exhales its amorous delirium in its songs; the quadruped, whose eye sparkles its ardour, darts its glances towards its companion, and thrills with love; but winter, crowned with hoar-frost, brings sadness and the stillness of death upon the earth. In those climates in which the fecundating heat of the atmosphere never ceases, the flower replaces the fruit which ripens and falls, the nestlings of birds succeed each other, generations call forth new generations. The year is one perpetual succession of life, all the beings do not appear to exist in these happy contrarieties, but to perpetuate in the bosom of pleasures. Life passes now more rapidly, because it is most consumed." (Op. cit.).

The sexual organs enlarge both in plants and animals during the season of reproduction; and they are destroyed in the former, and are collapsed in the latter, after the function is performed. It is also remarkable that the female organs in both classes of beings are internal and recipient, and the male are external and intromissive. Vegetables lose their sexual organs after reproduction, and have them renewed every year; but animals preserve those they have received, and these have periods of repose as well as of activity. These organs differ in different classes of plants and animals. Some are agamous, or asexual, as mushrooms, algæ, &c. among plants, and zoophytes, ceratophytes, corals, most of the infusoria, polypi, and echinoderms among animals. There are ova or eggs, even in some of these genera, and others propagate by divisions, sections, or offsets, as polypi, certain worms, and some of the infusoria. In other species the sexes are present in one individual, either conjointly or separately. Those which have both sexual organs are plants which possess stamens and pistils; and animals, as bivalve and multivalve shell-fish, certain worms, infusoria, &c. The species which have the sexual organs separate are monoicous plants, as maize, amaranthe, cucumber, &c.; the univalve shell-fish, certain worms, &c.

The greatest portion of organized beings have the sexual organs in different individuals, and these engender from puberty to senescence, unless affected with congenital vices of conformation, or with diseases which cause infecundity.

The following table shews the preceding differences in the reproductive organs of animated beings.

Capable of Engendering.—I. Without sex; the algæ, mushrooms, &c.; most of the zoophytes, imperfect animals, and infusorial animalcules.

Capable of Engendering.—II. 1. Reunited hermaphrodites; hermaphrodite plants, bivalve and multivalve, shell-fish, worms, &c. 2. Separate hermaphrodites, monoicous plants, univalve shell-fish, worms, &c.

Capable of Engendering.—III. One sex in male or female—dioicous plants, invertebrated animals, crustaceæ, insects, cuttle-fish, &c.

Incapable of Engendering individually.—IV. 1. Null, or incomplete

sexes—bees, ants, &c.—natural or artificial eunuchs. 2. Inactive sexes, as in extreme infancy, and senescence of all beings, and during diseases.

The season of rut, or amorous impulse, is to animals what floration is to plants. The maturity of their fruits and their seeds is analogous to the time of gestation and incubation with animals.

Males in general, except man and a few animals, do not love their females, but the germs of the offspring of which they are the depositories; and they do not seek them after impregnation. Man looks on a blooming girl in the prime of life, on a pregnant woman, and on one beyond the age of reproduction, with very different emotions. Among the inferior animals the females are seldom sought for, after conception, by the males. It is also well known that effeminate, impotent, or castrated individuals inspire contempt, and not love. It is likewise a general law, that animals and vegetables which are too old, are dead to reproduction.

Organized beings are powerfully affected by propagation; animals become depressed and dejected, and plants are deflowered, and often wither. The season of coupling with animals is a period of strife, and the most robust prevail, and maintain the vigour of the species. Animals are agitated and restless in the season of reproduction, their cries and accents announce their wants, and they seek each other. It is also remarkable that the amorous instinct of females of all animals leads them to prefer the most vigorous males. The feebleness of the one aspires after the strength of the other, and the vigour and impetuosity of the passions announce the capability for generation. If we examine the human species, we find that physical beauty is generally preferred to other considerations, though there are many exceptions. It often leads our nobility, and indeed all classes of society, to contract unequal marriages. Nature directs the physical, moral, and intellectual faculties to the perfection of generation. The attachment of the world, the laws of society, human conventions, in fact, every consideration must yield to it, with very few exceptions.

"Omnia vincit amor, et nos cedamus amori."

There is such a unison of sentiment, such a predilection between certain individuals, that they prefer each other to all the rest of the world. These relations of sympathy are the result of a harmony of age and character, and of the correspondence of the moral states of individuals. It is true that many other motives lead to conjugal alliances; but such are, for the most part, unhappy. The human species have, after the age of puberty, a presentiment of generation, even before they have a knowledge of its pleasures—*mentem Venus ipsa dedit*. The pleasure which nature joins to sexual union is an attraction so imperious and tyrannical as to be required as powerfully as any other want; and the inferior animals are impelled to it by an instinct even stronger than life: *in furias ignesque ruunt, amor omnibus idem.* This is modified by education, as well as by customs of society in our species. Harvey observed that many birds, insects, and fishes, produce eggs without the intervention of the male, but these are infecund. Such animals are often affected with disease, and perish. He continues to remark, that the human female, if deprived too long of the rights of Venus, may become affected with hysteria or nymphomania. "Omnia siquidem animalia, cupidinis æstro percita, ferociunt; et nisi se invicem fruantur, plurimum tandem à consuetis moribus recedunt. Ita mulieres quædam insaniunt præ desiderio consuescendi cum viris; et in non nullis usque adeo sævit hoc malum, ut vel veneficio afflatæ, vel sideratæ, aut à cacodæmone obsessæ judicentur. Idque sæpius contingeret, nisi proba educatio, bonæ famæ reverentia, et innata huic sexui verecundia, inordinatos hosce animi impetus compescerent." (Op. cit. Exer. cit. v.) Every observant individual will assent to these conclusions, as

daily observation must convince him of their accuracy. It is scarcely necessary to refer to duels, actions for divorce, and even murders caused by sexual impulse, which are of too frequent occurrence; so that the passion of love is often as imperious in our species, when the human mind is uncultivated or badly regulated, as in the inferior classes of animals. It gives rise to quarrels and dissensions among men, and has always done so, according to Horace:—

"Nam fuit ante Helenam cunnus teterrima belli causa."

Other evidence might be adduced that women were the cause of most sanguinary wars, and of strife and dissensions. Even in these days, actions for divorce, adultery, and prosecutions for the murder of husbands and wives, are prominent in our courts of justice.

OBSERVATIONS ON THE MEDICAL AND SURGICAL AGENCY OF THE AIR-PUMP.

Read before the British Association, in 1835.

By SIR JAMES MURRAY, M.D., T.C.D.

Inspector of Anatomy, and Senior Physician to his Excellency the Lord Lieutenant of Ireland.

(*Concluded from p.* 558.)

Palsy.—In partial paralysis there is coldness of the limbs, because the nervous energy is weak, and consequently, the circulation languid. Again, like every cause and effect, there is an augmentation of nervous debility and torpor, because the circulation is slow and ill-supplied. In such cases, you may give the nerves an impulse and support, by renovating the arterial activity, through this process of suction.

In fact, with respect to the limbs, it is dry-cupping on a *new scale, and for new purposes*, but as I said before,* it is not dry-cupping, when the whole body is concerned.

The trunk may be compared to a hollow tube, or case, filled by our vital organs; abstracting a part of the surrounding compression from the exterior of the body, permits its easier expansion, dilates its interior, and allows the great viscera to unload themselves of the surcharge of fluids, frequently detained in their vessels and spongy membranes.

When we reflect upon the laws of hydraulics, and consider that the brain and its blood are incompressible in their air-tight case, it will at once be admitted, how important it is in practice, to adopt means in addition to those usually had recourse to, capable of abating an untoward impetus of the circulation to the brain.

Although the propositions here detailed appeared extravagant to many, yet some eminent practitioners have since proposed the application of parts of the theory, without having seen my original suggestions. Amongst others, Dr. Clanny, of Sunderland, sent to The Lancet, of March 7th, 1835, a paper, to which I published a reply on the 28th of the same month, part of which I now beg leave to quote:—

"Any medical man who has been the first to propose or practise an improvement in his profession, is naturally anxious for the credit of his discovery. The process of altering the density and pressure of the atmosphere on the whole body, or on one or more of the limbs, was submitted by me to the profession, after long reflection, but I did not think it met with the consideration it deserved. During the prevalence of the cholera here, all my time was engaged as a member of the Central Board of Health, and I had not a moment to spare for personal attendance on the sick; therefore the adaptation of my theory to practice was not so well supported as I could wish. After that time, long absence in Italy, and subsequent illness, prevented my prosecuting the subject with attention, but since my return to Dublin, I have renewed my endeavours to render the general and topical powers of this agent better understood, and to extend its application towards aiding the treatment of many disorders. Actuated by this desire, I read papers on some of its adaptations, before the *Surgical Society of Ireland*, and had determined to give the results of certain trials in a separate publication, but seeing the paper of Dr. Clanny in The Lancet of the 7th inst., I am now induced to submit my views to the profession through the same channel.

"I am much more anxious respecting the *merits* of my propositions than their *priority*; but if Dr. Clanny has any doubt of the latter, I can refer him to most respectable medical gentlemen with whom I had made the rarefaction and condensation of air, on man, and other animals, a subject of discus-

* London Medical and Surg. Journal, 1832.

sion since 1812. The application of this process to cholera, was only a small part of my original propositions, as I still think it applicable to many other purposes.

"Dr. Clanny has candidly awarded to me the merits of the priority in *practice*. I am pleased that the *theory afterwards* presented itself to his mind. I have no doubt that he will evince the same liberal feelings as those which actuated Dr. Orpen, when set right on this identical point by my friend Mr. Carmichael, in 1832; part of Dr. Orpen's letter is subjoined:—

'*North Great George's Street, Dublin, August*, 1832.

'If you wish, I will write to the *Medical Journal* acknowledging that you have convinced me of the priority of your ideas; occurring *first* to your mind without suggestion, as they did *afterwards* to mine without suggestion. I am truly yours,

'C. E. H. Orpen.

'*To Dr. Murray.*'

The following paper was read by me before the *Surgical Society of Ireland*, on my return from Italy:—

Gentlemen—Two or three interesting discussions have already taken place in the *Surgical Society of Ireland*, on the theory of the effects arising from dissection wounds, and I hope it will not now appear out of place, if I lay before you some outlines of the principles which I think should direct our *treatment* in such cases. To those who lament the loss of Dease, Shekelton, and many others, suggestions will not, I trust, be considered useless on a subject which concerns the safety of the pathologist, as well as that of the student in anatomy.

You are well aware, Gentlemen, that no plan hitherto devised has been found capable of preventing the progress of any subtle poison to the heart, except that which comprises some modification of "suction." You also know that during post mortem examinations, when the hands are covered with the most offensive animal matter, suction by the mouth is seldom efficiently practised, and also that it is difficult to employ exhausting or rarefying glasses on unequal surfaces, such as those of the fingers, and other parts of the hand. The consideration of these difficulties led me to contrive a metallic case for embracing the whole hand, with an adaptation to render it air-tight, either above or below the elbow, a pipe to connect with the exhausting syringe, and another to attach with the mercurial gauge, which would regulate the degree of vacuum. When the rarefaction is properly effected, it may be continued for any length of time which may be considered requisite for the protection of the patient from the effects of those wounds, as well as the bites of rabid animals, and similar sources of deleterious matter.

This plan is certain of being effectual, for spaces between the fingers, where proper suction could not be effected by the mouth, or any topical instrument: this mode is sure to embrace every scratch about the parts which have been most exposed—even such, indeed, as are not seen, felt, or suspected. It will not only act as an effectual preventive, if used as a precaution, but it will greatly assist the cure, even after the symptoms have set in. Sir David Barry was able to arrest the most violent constitutional symptoms, in inferior animals, by dry-cupping.

Long before the discussion on these matters commenced here, I had put into the hands of your Secretary, Dr. Jacob, and others, a prospectus of some lectures, in which I had proposed to explain this, and similar adaptations of the principle; but as the plans require demonstration, in order to become perfectly intelligible, I shall not now trouble you with a description of them.

The value of suction in preventing the introduction of poisons into the circulation, was as well known to the ancients as it is to the moderns; and much more frequently practised by them. The wound of Philoctetes was inflicted by one of the poisoned arrows of Hercules, and cured by Machaon, by the power of "suction" alone, as we find related in the fourth book of the Iliad. Plutarch mentions that Psylli and Marsi were hired to attend the camp of Cato in Africa, for the purpose of sucking the bites of venomous reptiles, and that they invariably succeeded in their attempts, at the same time causing the part to swell, which proved the power of the vacuum they had produced. Hippocrates mentions the use of dry cupping, to extract injurious matter from wounds:—

"Cucurbitulæ quæ enim in usum fabricatæ sunt,
Ut ex carne attrahant et avellant;"

and Celsus says, that if it should so happen that the cupping-glasses are not at hand, a man must be procured to suck the part. "Homo adhibendus est qui vulnus exugat."

The experiments of Sir David Barry confirm the opinion and practice of the Greeks and Romans, and even extend so far as to prove that the application of the cupping-glass for half an hour, deprives the vessels of their absorbent qualities, during an hour or two after its removal. Modifications of the apparatus alluded to, are, in my opinion, much better adapted for effecting this important object on irregular surfaces, than any of the usual cupping glasses.

Upon the subject of diminishing or abstracting atmospheric pressure, I should not omit to enforce the value of forming a vacuum immediately on opening a lumbar abscess, into which vacuum it is easy to elicit the matter by means of an elastic pipe, when

such may be required. Without in this way abstracting the atmospheric air from the cavity of the sac, it is almost impossible to prevent the ingress, and supposed bad effects of the air.

Around an abscess in a limb you can apply circular pressure, and bring the sides of the cavity into contact; but not so in cases of psoas abscess, where the bones of the pelvis, and the irregularity of the passages prevent the application of such pressure, besides, every motion of the lumbar and flexor muscles of the thigh, and even the act of respiration itself, tends, at intervals, to make a vacuum in the sac, into which the air rushes, producing many evils, and causing the absorption of the pus and its vapour or effluvia, which cannot so readily take place if the atmospheric pressure be taken off.

Independently of the value of this principle in the evacuation of matter, air, water, or extravasated blood, it is very advantageous in drawing out such hemorrhoidal, or other tumours in or about the anus, as it may be desirable to have fully elongated for the purpose of excision, either by the knife or ligature.

In a subsequent paper, read at the College of Surgeons of Dublin, I detailed several cases in which I had succeeded in reducing hernia by this plan. Among others, I related one which occurred in 1834, and had also been seen by the President of the College of Surgeons. When every means of reduction had failed, I effected a partial vacuum over the tumour, and drew out more of the intestine and its contents; it readily returned of itself in the course of the night. I may now mention, that where there is high excitement, great tenderness on pressure, and incipient inflammation, I resort, in the first instance, to the plan of compressing the protrusion, by additional air-pressure, until the vessels are emptied, the congestion of the tissues diminished, and sensibility reduced.

Then, reversing the operation, and abstracting the air from the surface of the tumour, I draw it outwards, and bring forward a fresh, uninjured piece of intestine, or omentum, through the ring or canal. The effect produced by drawing forward the hernia is this, that we have then to deal with a part of the protrusion not already swelled or inflamed, and the tumour becomes more of the nature of reducible hernia, for it cannot properly be called strangulated so long as we can cause the transit of new portions through the passage, in either directions, and so long as the circulation is maintained uninterrupted. This gains time, and frequently ensures success.

No doubt, failures sometimes occur, when the constriction has been of long standing. In *femoral hernia*, the acute angle presented by the protruded parts, greatly retards the process of reduction.

I tried the air-pump, in a case of femoral hernia, in Jervis-street Hospital, last year, but did not succeed; Mr. Wallace operated afterwards with success. Where there are adhesions, we must often submit to disappointments.

The lectures alluded to in a former paper, were intended to exhibit the practical applications of these processes. In the printed prospectus the *reduction of hernia*, by the air-pump, or rarefaction, formed a part of the subjects of the course. It is difficult to explain in writing the mechanism of these various adaptations of mechanical agents; but then, as now, I have always been ready to point out every part of the propositions and contrivances to any medical gentleman desirous of unprejudiced consideration and impartial judgment.

I have had occasion to show its power of reducing hernial protrusions to several surgeons. Cases of its efficacy were witnessed at my house by Messrs. Carmichael, Ellis, Lynch, Duggan, and others.

Rarefaction of the air is, in many other ways, an agent of great power and extensive adaptation; for instance, ladies in whom the development of the breasts is deficient, and who have consequently a paucity of milk, may have the supply required merely by increasing the calibre of the arteries, and of course the determination to, and retention of, the blood in those parts; for milk is but blood, altered by the vital and galvanic apparatus of the mammary glands. In cases of small contracted breasts, I have seen the abstraction of one, two, or three pounds, per inch, of pressure expanding the vessels, augmenting their tortuosity, filling up the mammæ, and producing plenty of milk in healthy subjects. By determining a similar plenitude in the manner to the uterine vessels, through the well-known sympathy of the breasts, I have frequently succeeded in causing the menses to appear after long-continued amenorrhœa. How rational is this mode of determining the vital fluid through the mammary arteries, when compared with the method lately proposed, of curing obstructed menstruation by applying leeches, sinapisms, and other irritants to the breasts, and how superior to the plan just now tried in France, of eliciting menstruation by sucking the nipple! The French mode only dilates that appendage; mine replenishes it, as well as the whole body of the breast.

Having now spoken of *particular* applications of this principle, I shall say a few words of its general powers. On the 14th of July, 1832, I published in the London Medical and Surgical Journal, a description of an apparatus for abstracting part of the atmospheric pressure from the entire surface of patients. This proposal was made for cases in which it was desirable to determine the circulation from the *centre* to the *circumfe-*

ence, to open the pores of the skin, induce perspiration, and cause a revulsion of any congestion from the internal organs to the superficies of the body. One of your talented members, Dr. Hart, and his associates, published the result of some trials on cholera patients, who had previously been relinquished to their certain fate at the hospital. Even then the results were sufficient to prove the great efficacy of the principle, for in all cases it rendered the cold and bloodless integuments warm, and the capillaries permeable to the circulating fluids. Many of you, gentlemen, may have seen the apparatus and the publications respecting it: I now observe, that in 1835, it is copied exactly by the French, and notwithstanding I had circulated the Journal in Paris, in 1833, on my way to Rome, yet, like most other imitators, they have misunderstood the theory, and misapplied the practice. They put the patient wholesale into the bath, pump off the air, and let the unfortunate person gasp for breath: whereas, all the merit of my plan consists in furnishing the lungs with air of the usual density and pressure, while I diminish the density and pressure on the exterior parietes of the chest, and entire surface of the body. At some of my lectures I mean to show this, along with other apparatus.

For the purpose of insulating a patient's body from the external air, a small oval bath, of tin, zinc, or copper, is employed; its lip is furnished with a groove to contain uting, for connecting the lid or cover.

In this lid is an aperture to pass over the patient's head, and around this opening is fitted a margin of air-tight cloth, which applies itself so as to embrace the top of the chest and back of the neck. The patient sits upon a seat, easily varied to a regular height, and his head is unconfined, the body and limbs only being inclosed. When the bath is thus adjusted, it is to be partially rarefied, either by the condensation of a little hot air, or steam, or by a few strokes of the suction-pump.

When the air of the bath is exhausted, to the extent of two inches, upon the mercurial gauge, it indicates the removal of *one hundred and forty-four pounds* from every square foot of the patient's surface, or one pound from every square inch.

Rarefection to this degree is the utmost at any time required, and does not injuriously interfere with those great hydraulic laws, which modify either the general or pulmonary circulation. But, on the other hand, when the principle is applied *topically* to a part of the trunk, or to the limbs, as no interference with respiration can then occur, *two or three pounds* of pressure may be drawn from every square inch, but there is seldom occasion to proceed to that extent. To withdraw away even a fifteenth part of the atmospheric gravity, will, I think, be found a therapeutic agent, abundantly powerful for any useful purpose.

It was my intention to give drawings of the various adaptations, but as it is obvious that any misconception might lead to injurious results, I have thought it safer to direct an able artist, Mr. Hodges, of Westmoreland-street, to make the apparatus, supply proper directions, and send a careful person conversant with its mechanism to apply it. He has also arranged a similar facility, to be afforded by Mr. Hart, 25 Hunter-street, Hanover-square, London, and any other place that may require it.

I have further requested him to communicate to any medical gentleman, the most free and explicit explanations respecting the mechanism and applications of the general, or local baths for RAREFACTION.

I am nervously anxious that this principle should not be longer misunderstood.

I have already had ample proofs of the misapplication of another remedy, which I suggested sixteen years since; viz. the topical application of *iodine, in vapour, diluted and diffused in that of water, or of soothing decoctions* to be administered by inhalation.*

This local treatment was brought into disrepute by the persons who since attempted its employment: they cause their unfortunate patients to inhale the *concentrated and undiluted vapour of iodine*, from *a confined pipe*, and mingled with the irritating alcoholic vapour, rising from the tincture, which they so injudiciously employ, to afford the iodine inhalation.

PART II.—*The Influence of Condensation, or increased elastic pressure of the Atmosphere, upon a part or the whole of the Human Body.*

As rarefaction of air on the surface of the living body, will abstract the blood and other fluids from the interior, expand the exterior, and fill its vessels, so on the other hand, *compression or condensation* may be employed in various other cases, besides those enumerated in my former papers; particularly in suddenly charging the system with mercury, as in cases of inflammation of the brain, and in croup.

In a general point of view, we may glance at the agency of a condensed atmosphere on respiration, and the supply of additional quantities of air, to the lungs, without increase of the volume or bulk inspired: many proofs of its influence might be related, in cases where persons have been confined in air-tight vessels, and air pumped in, to such an extent as not to become oppressive. In several instances of

* See Treatise on Iodine Inhalation, p. 171—260, &c., and Lancet of March 28, 1835.

difficult respiration, its application was beneficial.

As *asthma*, depending on inability to expand the air-cells, and walls of the chest, is relieved by the process of rarefaction *outside the thorax*; so on the contrary, that species of asthma, which is caused by over dilatation of the cells, and want of contractility, is alleviated by *condensation*. Persons have been cured of Asthma, by descending in a diving-bell, where their lungs and entire body were subject to an additional elastic compression of air, equal to forty tons.

Some persons may object, by saying, that if we facilitate *inspiration* by the air-pump, we impede *expiration* in the same proportion. This is a very rational argument; but the practice is only recommended in cases where the balance between these two processes is already unequal, and where we might be justified in attempting to aid either, by rarefaction, on the one hand, or by compression, on the other. This circumstance shows the necessity of due discrimination, and that much judgment must be exercised, should the principles come into use.

The importance of employing this adjuvant, may be more readily admitted, when we consider the amazing extent of surface over which the blood is presented to the atmospheric influence in the lungs, an extent, thirty times greater than that of the entire superficies of the whole body, as calculated by Monro, the second. The air vesicles being only one-eightieth of an inch in diameter, there will be five hundred and twelve thousand vesicles in a cubic inch. Supposing the cells cubical, the sides will then extend, in a cubic inch, to three millions seventy-two thousand. If we deduct one third for the communicating apertures, two millions seventy-two thousand will remain, constituting a space equal to three hundred and twelve square inches, or two feet twenty-four inches. Now, as the lungs, when expanded by a full inspiration, contain about two hundred and twenty cubic inches of air, the whole internal surface spread out to the atmosphere, extends to four hundred and forty feet, that is, nearly thirty times the expanse of the external surface of an ordinary man, which was computed, at page 1, to measure fifteen feet. The above differs from the calculations of Kiel, and others, but for all practical purposes, the difference is not very material.

With respect to the partial or local effects of atmospheric pressure, I have observed its utility in Hernia Humoralis, and other glandular swellings. I also showed to Mr. Little, and other students at the College of Surgeons, the facility by which a *prolapsus uteri* was reduced and retained in its place. This was effected simply by connecting the neck of a small oiled bladder with the air-syringe; when the air was forced into the bladder, it was reflected around the protruded uterus, embracing that organ, as if in a double night-cap; it then grasped, corrugated, and diminished the prolapsed womb, and propelled it back into the pelvis, pushed on, and retained in its place, by the expanded bladder.

When you put the hand into a wet bladder, and exhaust the air, there is a very intense degree of cold generated, and the compression is more than the fingers can easily bear. I heated the bladder in warm water, and even then, the temperature of the hand was reduced. The fingers seen through the bladder, were wrinkled and bloodless. There is no doubt but that hemorrhages would be instantly suppressed by this tight embracing involucrum, which adapts itself to every eminence and depression of the joints and fingers, so as to press equally on all parts. There is very brisk re-action when the compression is removed, the hand becomes red and hot, by the increased return of the circulation to the surface.

Drawing a limb into a tube of oiled-silk, or even a softened bladder, open at both ends, and confined by tape, above and below the part affected, presents a ready method of effecting speedy and equable compression. When the contained air is withdrawn from this envelope, it contracts and embraces every point, *high* or *low*, in an equal degree; this is much more suitable for *inflamed*, or *ulcerated burns*, than the diachylon strapping of Professor Velpeau.

By this means, we can regulate GRADUATED compression upon angular, or irregular joints or surfaces, and thus arrest hæmorrhage, and repress protuberant granulations.

One avowed design of bandages in cases of fractures, particularly in the French schools, is "for the purpose of benumbing the irritability of the muscles;" but, if unequal and chafing bandages are useful, how much more so must be the soothing power of *elastic compression*, exercised only on the portion of the limb or body that requires it, and leaving the parts adjoining free and unconfined.

Ulcers of an indolent nature, may have their activity increased, and granulation elicited by the principle of suction, and inversely, ulcers of a vascular, turgid, or inflamed character, may be rendered much less active by this species of pressure.

Mr. Spender, and others have shown that the majority of ulcerous diseases of the leg are not so much owing to the depending position of the parts, as to a positive and palpable unhealthiness of the superficial structure of the limb, consisting of a varicose condition of the cutaneous veins. Most writers attribute this varicose state of the superficial veins, to weakness of their tunics, or to some mechanical interruption to the upward flow of blood. Whatever the above author, or any other has said on the subject

of the depending position of the limb, there can be no doubt that the ascending columns of blood in the veins, and their distance from the heart, greatly tend to augment the dilatation and debility of these vessels in the legs. Observe the effects upon the two legs of the same individual, if he permits the one to hang down, as he reclines, on a bed or sofa, and if he rests the other much higher than his body; the elevated limb will become smaller than the other, and similar ulcerations will heal in half the time.

The veins are furnished with valves, at certain intervals, so that in the natural state, the space between each valve, keeps its own quantum of blood poised up, as if it were almost an insulated link of a tube, like that separated by the joints in a cane or other hollow reed. But when debility of the sides of the veins takes place, or when they are distended by obstructions in their course, such as those occasioned by garters, and tight lacing, or pregnancy, then the walls of the veins are pushed so far asunder, that the tube no longer embraces the valves, the latter become too small for the calibre of the vessel, and the column of blood, in place of being insulated, and supported, as if by separate joints, is now all bearing upon the already enlarged and relaxed tube, and there are engorgements and distension of the veins, and of all the little rivulets that should flow into them.

Case.—Herbert, a cabinet-maker, was admitted into the Netterville Hospital, in July last, labouring under extensive ulceration of the ancle joint, of nearly ten years' continuance: the foot was swelled and œdematous, and the ulcers spongy and ill-conditioned. So obstinate was the disease, that it had been repeatedly proposed to amputate the limb. The whole joint was subjected to atmospheric pressure for ten days, when the swelling was reduced, and the entire ulceration healed up.

Hernia Humoralis.—The greatest cause of pain in this disease is the distension of the tunica albuginea. This arises from the pressure from *within*, putting the unyielding tunic on the stretch. In this case, compression from *without*, balances the other expansive tension, and overcomes it, thus the pain is relieved, at the same time that the vessels are emptied, and the inflammation consequently abated.

I had resolved to adduce many cases, illustrative of the foregoing propositions, but I lament my paper is already too long. I shall, with pleasure, explain the modus operandi, to any gentleman who may honour me with a visit, and beg to conclude by an extract from a paper formerly read to the Surgical Society of Ireland.

The influence of increased pressure, and the elasticity of the atmosphere, are matters of great moment, the details of which admit of varied extension. I am the more desirous to call your attention to the consideration of this topic, in order that I may submit the result of certain trials of the effects of atmospheric pressure. In presence of the respected Vice-President of the College of Surgeons, Mr. White, I instantly reduced a very inflamed, turgid, tender, and most troublesome prolapsus ani, *without touching the sensitive protrusion.* Any of you may see the child of Larkin, No. 32, Bridgefoot Street, and it is worth the trouble of visiting. I succeeded in a similar extremely bad case, last winter, at Rome, after all the usual means had failed in the hands of others. The great advantage of my plan consists in this, that it *empties* the turgid blood-vessels, and quickly reduces the protrusion, without inflaming or irritating the rugæ, or folds of the mucous membrane, and without the painful operation of introducing the fingers, paper cones, or folded cards, as formerly recommended. When the prolapsus is reduced by the pressure of air, over a surface of oil, lime-water, or infusion of galls, the relaxed villous coat seldom descends again, and if it should, it may be returned with the greatest facility, because its veins are comparatively empty, and its morbid sensibility abated, by the uniform pressure.

It is almost incredible to relate the advantages I have seen from the introduction of an elastic compress of air, under a cup, confined by a wet bladder, or some other cover, upon tumours and swellings of various kinds. Among these may be mentioned chronic enlargements of the breast, and other glands; depositions in the cellular and intersticial tissues, white swellings of the joints, and distensions of the bursæ; bleeding or fungous sores, or surfaces, indurated tumours, and local congestions. Owing to my long absence, I had not sufficient opportunity to try this mode of compression in varicose veins, or aneurismal dilatations; but I have frequently returned reducible herniæ, without pain or difficulty.

The mode of pressure recommended by Recamier, Young, and other writers, is liable to many objections. Their compresses bear most upon the centre and sensitive apex of the tumefaction, press with great inequality, abrade the parietes, and frequently hasten the degeneration of scirrhous enlargements into cancerous ulceration; but, on the contrary, the method here recommended, presses equally upon all parts of the swelling, defends the skin from abrasion, compresses the circumference of the part acting upon the vessels *around the tumour, where they are most capable of absorbing*, propels away the contents of the veins, and prevents further untoward influx by the arteries. To persons accustomed to the manipulations of valves and machinery,

these processes soon become manageable, the degrees of compression being easily regulated by a mercurial gauge.

I have already mentioned, that Sir David Barry, and many others, have proved that the withdrawal of the air by suction, or dry-cupping, prevents the penetration and imbibition of poisons. I have proposed a reversal of this law, that is, *to enforce the absorption of remedies*, by superadding an artificial atmospheric pressure, over the part.

Warm or cold lotions, medicated infusions, gases, or vapours, may thus be introduced into the part affected, and the power of imbibition be very much increased, by well regulated compression. In this manner, solutions of iodine, or its vapour, sulphur, mercury, narcotics, or sedatives, can readily be introduced in local affections, or general complaints. In cases of tic douloureux, spinal disease, and sciatic ailments, I purposely detach the scarf-skin, and topically introduce the appropriate remedies, by pressing them into the affected tissues, on the principle of transfusion through the membranes. On the other hand, a compression of atmospheric, or any other air, *over inflamed surfaces*, is well calculated to propel the overflow of blood onwards to the general circulation. I have experienced the good effects of such condensation over erysipelatous and erythematous inflammations.

The arteries of the female breast become remarkably distended and tortuous after parturition. In cases where the mother cannot nurse, or the child dies, this untoward circulation produces fever and irritation. It becomes, therefore, a matter of great moment, to diminish the blood-vessels, and to lessen their activity. Cold applications, astringent lotions, and irregular compresses, have frequently been productive of serious constitutional and local injuries; but when you surround the whole mamma by a disk of proper shape, as it were *insulating* the breast, and pressing only around its base, you cut off the supplies by moderate gradations, and you diminish sensibility by gentle, diffused, and elastic compression.

All organs requiring sudden augmentation of activity, and great occasional supplies, such as the womb, the stomach, the spleen, &c. are furnished with tortuous arteries; and this twisted condition increases, as the volume and active functions increase. This tortuosity may be designed by nature, not so much to impede the force of the circulation, as to detain and delay the blood in its way through the organs, requiring at those periods such extra replenishment. Pressure remarkably diminishes the tortuosity of arteries which supply enlarged and inflamed glands and tumours, approximates the sides of the vessels, abates their sensibility, lessens their contents, and reduces large trunks to the diameter of minute branches. This constriction is admirably calculated t impede and expel an excess of blood, to di minish engorgements, and to dissipate infil tration.

Infants may die from leech-bites; th whole family cannot stop the hæmorrhage even the doctors have failed in extinguishin the rush-light. They all knew they coul command any quantity of blood *to flow*, b making a *vacuum* over the bites; but i never entered their heads that it would b just as easy to stop the orifices, by making *plenum* over them. Three or four strokes o the compressing piston condense the air, an instantly arrest the hæmorrhage. The by standers stare, and exclaim, "how curious," "it is so simple," "we never thought o it before." But it is not only leech-bites that condensation will stop, but uterine an other hæmorrhages, whenever compressio can be applied by means of water, or othe proper liquids, so as to overcome the im petus of the blood. A few inches of mercur indicate a pressure quite equal to this. Th condensation you can regulate with the ut most precision, every inch of mercury indi cating half a pound of pressure.

By means of well regulated condensatio of air, you can retain the bowels in the cavit of the abdomen, when its parietes have bee opened or torn, and you will be able t command the flow of blood from fungou tumours, wounds, and ulcerations.

Reviews.

The Physiology of Digestion, considered wit Relation to the Principles of Dietetics By Andrew Combe, M. D., Physician i Ordinary to their Majesties, the King an Queen of the Belgians. London: Simpki and Marshall. 1836.

This is a most instructive and valuabl work, both to the general and medical rea der; and cannot fail to be generally circu lated. It is a continuation of the author "Principles of Physiology applied to th Preservation of Health and to the Improv ment of Physical and Mental Education," production which we were the first to r view, and eulogize as it deserved. The cr ticism we offered was just, as is proved b the rapid sale in two years of three edition the last consisting of 3000 copies; thoug booksellers' hacks, and shallow reviewe among our enlightened contemporaries, pas ed it by unnoticed. Had the work issue from a favoured London publisher, it wou

have been lauded by hireling scribes, were it not worth a farthing; but these poor creatures must earn their crumbs, and sacrifice the advancement of science, to please their employers. Few authors have had more success, or so well deserved it, as Dr. Combe; and thus encouraged, he follows up his plan of popular instruction. We shall allow him to explain the arrangement of the work before us to our readers.

"The matters discussed on the present occasion relate to the function of Digestion and the principles of Dietetics; and in selecting them I have been guided by the same principles as before. It may, at first sight, be doubted whether I have not exceeded proper bounds in thus dedicating a whole volume to the consideration of a single subject: but the more we consider the real complication of the function of Digestion—the extensive influence which it exercises at every period of life over the whole of the bodily organization—the degree to which its morbid derangements undermine health, happiness, and social usefulness, and especially the share which they have in the production of scrofulous and consumptive as well as of nervous and mental affections—we shall become more and more convinced of the deep practical interest which attaches to a minute acquaintance with the laws by which it is regulated. In infancy, errors in diet, and derangement of the digestive organs, are admitted to be the principal causes of the striking mortality which occurs in that period of life. In youth and maturity, the same influence is recognised, not only in the numerous forms of disease directly traceable to that organ, but also in the universal practice of referring every obscure or anomalous disorder to derangement of the stomach or bowels. Hence, too, the interest which has always been felt by the public in the perusal of books on Dietetics and Indigestion; and hence the prevalent custom of taking purgatives as remedies for every disorder, very often with good, but not unfrequently with most injurious effects."

No medical practitioner possessing scientific knowledge and practical experience can differ in opinion with our author, or can deny the correctness of the sentiment expressed in the last sentence we have quoted. The intestinal school has too long predominated with too many British practitioners, whose doctrines cloak a vast deal of ignorance and bad practice. It is equally clear, that too little attention is given to dietetics, because some suppose that mercurial pill or calomel with "black draught" is to cure all manner of diseases. It cannot be denied that dietetics are too much neglected, though there was much wisdom in the axiom of the father and founder of the healing art—"*Ut terra est arboribus, ita sit ventriculus animalibus.* It is, however, remarkable that works on dietetics have never been duly estimated, though mankind, in general, are deeply interested in the subject of which they treat. Dr. Combe undertakes to explain the cause of this anomaly.

"Numerous and popular, however, as writings on dietetics have been, and excellent as are many of the precepts which have been handed down by them from the earliest ages, sanctioned by the warm approval of every successive generation, it is singular how very trifling their influence has been, and continues to be, in altering the habits of those to whom they are addressed. In a general way, we all acknowledge that diet is a powerful agent in modifying the animal economy; yet, from our *conduct*, it might justly be inferred, that we either regarded it as totally devoid of influence, or remained in utter ignorance of its mode of operation, being left to the guidance of chance alone, or of notions picked up at random, often at variance with reason, and, it may be, in contradiction even with our own daily experience.

"The cause of this extraordinary anomaly—and it is of consequence to remark it—seems to be, not so much the absolute want of valuable information, as the faulty manner in which the subject is usually considered. In many of our best works, *the relation subsisting between the human body on the one hand, and the qualities of the alimentary substances on the other*, as the only solid principle on which their proper adaptation to each other can be based, is altogether lost sight of; so that, while the attention is carefully directed to the consideration of the abstract qualities of the different kinds of aliment, little or no regard is paid to the relation in which they stand to the individual constitution, as modified by age, sex, season, and circumstances, or to the observance of the fundamental laws of digestion. And hence, although these conditions are not unfrequently of much greater importance to the general health than even the right selection of food, yet, when indigestion arises from neglecting them, the food alone is blamed, and erroneous conclusions are drawn, by relying on which upon future occasions, we may easily be led into still more serious mistakes.

"It is, indeed, from being left in this way without any guiding principle to direct their experience, and test the accuracy of the precepts laid down to them for the regulation of

their conduct, that many persons begin by being bewildered by the numerous discrepancies which they meet with between facts and doctrine—between counsel and experience, and end by becoming entirely sceptical on the subject of all dietetic rules whatever, and regarding them as mere theoretical effusions, based on fancy, and undeserving of a moment's consideration.

"The true remedy for this state of things is, not to turn away in disgust and despair, but to resort to a more rational mode of inquiry—certain that, in proportion as we advance, some useful result will reward our labours. Such, accordingly, has been my aim in the present publication; and if I shall be found to have been even moderately successful in attaining it, I shall rejoice in the confident conviction that others will be led to still more positive and beneficial results. Utility, and not novelty, has been my great object throughout; and therefore, although in some instances I have perhaps regarded known facts in a new point of view, and deduced from them practical inferences of considerable value, I lay no claim to any farther originality, except such as is implied in the adoption of what I conceive to be an improved mode of investigation; and if I have anywhere used expressions which may seem either to do injustice to others or to arrogate too much credit to myself, it has been entirely without any such design, and consequently, I will be prompt to acknowledge my error and rectify the involuntary mistake."

Our author refers to all the recent works on hygiene, especially to those of Hodgkin, Dunglison, and Kilgour, which he has very properly laid under contribution. We cannot possibly attempt an analysis of his work, as it would require us to cite the whole. Suffice it to state, that it ought to have a place in every library, and ought to be in the possession of every family, both high and low. It abounds in every page with valuable information, and is eminently calculated to render the most essential benefit to mankind, in preserving health, and by informing all how to prevent a host of troublesome and often incurable diseases. We hope and trust that Dr. Combe will prosecute the laudable endeavour of informing general readers on the hygiene of every physiological system, as he cannot fail to render the most essential good to all classes of our species.

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GUY'S HOSPITAL REPORTS.

Cases and Observations, illustrative of Renal Disease, accompanied with the secretion of Albuminous Urine. By Dr. Bright.

The importance and extensive prevalence of that form of disease, which, after it has continued for some time, is attended by the peculiar changes in the structure of the kidney, now pretty generally known by the names of "mottling," "white degeneration," "contraction," or "granulation," impresses itself every year more and more deeply on my mind; and whether I turn to the wards of the hospital, or reflect on the experience of private practice, I find, on every side, such examples of its fatal progress and unrelenting ravages, as induce me to consider it amongst the most frequent, as well as the most certain causes of death in some classes of the community, while it is of common occurrence in all; and I believe I speak within bounds, when I state that not less than five hundred die of it annually in London alone. It is, indeed, a humiliating confession, that although much attention has been directed to this disease for nearly ten years, and during that time there has probably been no period in which at least twenty cases might not have been pointed out in each of the large hospitals of the metropolis—and there is reason to believe that double that number may, at this moment, and at all times, be found in the wards of Guy's Hospital—yet little or nothing has been done towards devising a method of permanent relief, when the disease has been confirmed; and no fixed plan has been laid down, as affording a tolerable certainty of cure in the more recent cases. I believe that our want of success, in what are considered the more recent attacks, is frequently owing to the fact that the disease is far more advanced than we suspect, when it first becomes the object of our attention: and I am most anxious, in the present communication, to impress upon the members of our profession the insidious nature of this malady, that they may be led to watch its first approaches with all the solicitude which they would feel on discovering the first suspicious symptoms of phthisis or of epilepsy. There is great reason to suppose that the seeds of this disease are often sown at an early period, and that intervals of apparent health produce a false security in the patient, his friends, and his medical attendant, even where apprehension has been easily excited.

The first indications of the tendency to this disease is often hæmaturia, of a more or less decided character: this may originate from various causes, and yet may give evidence of the same tendency: scarlatina has apparently laid the foundation for the future mischief: exertion in childish plays has done the same; or it has sometimes

peared to be connected with suppressed catamenia. Intemperance seems its most usual source; and exposure to cold the most common cause of its development and aggravation. It is, however, more particularly to those causes which operate in youth, or are apparently so casual as to tempt us to believe that when the immediate symptoms are subdued no evil can result, that I wish to direct attention. Where intemperance has laid the foundation, the mischief will generally be so deeply rooted before the discovery is made, that, even could we remove the exciting cause, little could be hoped from remedies; but at the same time, a more impressive warning against the intemperate use of ardent spirits cannot be derived from any other form of disease with which we are acquainted; since, most assuredly, by no other do so many individuals fall victims to this vice.

The history of this disease, and its symptoms, is nearly as follows:—

A child, or an adult, is affected with scarlatina, or some other acute disease; or has indulged in the intemperate use of ardent spirits for a series of months or years: he is exposed to some casual cause or habitual source of suppressed perspiration: he finds the secretion of his urine greatly increased, or he discovers that it is tinged with blood; or, without having made any such observation, he awakes in the morning with his face swollen, or his ankles puffy, or his hands œdematous. If he happen, in this condition, to fall under the care of a practitioner who suspects the nature of his disease, it is found that already his urine contains a notable quantity of albumen: his pulse is full and hard, his skin dry, he has often headach, and sometimes a sense of weight or pain across the loins. Under treatment more or less active, or sometimes without any treatment, the more obvious and distressing of these symptoms disappear; the swelling, whether casual or constant, is no longer observed; the urine ceases to evince any admixture of red particles; and, according to the degree of importance which has been attached to these symptoms, they are gradually lost sight of, or are absolutely forgotten. Nevertheless, from time to time the countenance becomes bloated; the skin is dry; headaches occur with unusual frequency; or the calls to micturition disturb the night's repose. After a time the healthy colour of the countenance fades; a sense of weakness or pain in the loins increases; headaches, often accompanied by vomiting, add greatly to the general want of comfort; and a sense of lassitude, of weariness, and of depression, gradually steal over the bodily and mental frame. Again the assistance of medicine is sought. If the nature of the disease is suspected, the urine is carefully tested, and found, in almost every trial, to contain albumen, while the quantity of urea is gradually diminishing. If, in the attempt to give relief to the oppression of the system, blood is drawn, it is often buffed, or the serum is milky and opaque; and nice analysis will frequently detect a great deficiency of albumen, and sometimes manifest indications of the presence of urea. If the disease is not suspected, the liver, the stomach, or the brain divide the care of the practitioner, sometimes drawing him away entirely from the more important seat of disease. The swelling increases and decreases; the mind grows cheerful, or is sad; the secretions of the kidney or the skin are augmented or diminished, sometimes in alternate ratio, sometimes without apparent relation. Again the patient is restored to tolerable health; again he enters on his active duties: or he is perhaps less fortunate;—the swelling increases, the urine becomes scanty, the powers of life seem to yield, the lungs become œdematous, and, in a state of asphyxia or coma, he sinks into the grave; or a sudden effusion of serum into the glottis closes the passages of the air, and brings on a more sudden dissolution. Should he, however, have resumed the avocations of life, he is usually subject to constant recurrence of his symptoms; or again, almost dismissing the recollection of his ailment, he is suddenly seized with an acute attack of pericarditis, or with a still more acute attack of peritonitis, which, without any renewed warning, deprives him, in eight and forty hours, of his life. Should he escape this danger likewise, other perils await him; his headaches have been observed to become more frequent; his stomach more deranged; his vision indistinct; his hearing depraved: he is suddenly seized with a convulsive fit, and becomes blind. He struggles through the attack, but again and again it returns; and before a day or a week has elapsed, worn out by convulsions, or overwhelmed by coma, the painful history of his disease is closed.

Of the appearance presented after death, enough will be said in another part of the present communication; but one question may be asked in this place—Do we always find such lesion of the kidney as to bear us out in the belief, that the peculiar condition of the urine, to which I have already referred, shows that the disease, call it what we may, is connected necessarily and essentially with the derangement of that organ? After ten years' attentive—though, perhaps, I must not say completely impartial observation—I am ready to answer this question in the affirmative; and yet I confess that I have occasionally met with anomalies which have been somewhat difficult to explain.

I have certainly seen one or two cases, and have read statements of one or two more, in which the condition of the kidney would have led me to expect albuminous

urine, but in which it had not been found to exist. In all these cases, however, the observations on the character of the urine have been made only a few days or weeks before death, at the close of a protracted illness; or the disease of the kidney has been complicated with other very extensive disease. A case occurred under my care, in the Clinical Ward, this winter, where a man died with ascites and a complication of most extensive disease of the liver and peritoneum with moderately advanced granulation of the kidney; yet it was only by the most careful examination, that any traces of albumen could be detected in his urine; and this leads me to observe, that the secretion is apt to undergo changes, even after the structural disease is established; which renders it requisite that we should not be content with examining the urine on one or two occasions, if we have any reason to suspect the existence of this disease. In the first place, it is quite certain, that if, from any cause, the urine becomes alkaline, the application of heat generally fails to produce coagulation; and in the next place, there has appeared to me to be an occasional alternation in the secreting power of the kidney; so that a large quantity of the lithates, or of crystallized lithic sand, is deposited, and the albuminous matter is not thrown off. I have this winter had a case of this kind likewise under my care, in a man whose symptoms bear all the character of renal disease, complicated with the disease of other viscera. His urine for several weeks was found to be distinctly albuminous: it then became loaded with the lithates; and now throws down abundant crystals of lithic sand, and no longer affords any trace of albumen: and mentioning this case to Dr. Addison, I was told that very lately the converse of this had shown itself in a case to which he had been called. All the symptoms led him to suspect this peculiar form of renal disease; but the urine did not coagulate, and was loaded with lithates. After a short time, the lithates disappeared, and now the albumen is very decidedly perceived in the urine. That such facts as these tend, in some degree, to render the presence of albumen in the urine, or its absence, a less unerring test, cannot be doubted; but these anomalies are so few, as to interfere very little with the general fact: and after all, in the present state of our knowledge, how few of our diagnostic marks are not more or less under the influence of the casual complications of disease! There is no doubt, likewise, that the morbid condition of the kidneys, connected with this disease, varies, in different cases, to such a degree as to lead to the belief that the action from which the change has resulted, must at least be modified by circumstances and constitutions. The kidney is sometimes simply contracted and hardened; sometimes loaded with an adventitious deposit; sometimes apparently degenerated throughout its whole texture: sometimes affected both with deposit, degeneration, and contraction; all probably the result of chronic excess of action. It is to be expected that modifications should arise in the degree and constancy of the morbid secretion, under such varieties of diseased appearance: but this is not, as yet, satisfactorily known; and I have certainly not always found the quantity of albumen increased in proportion to the apparent advance in the structural disease.

Another very important question is, the length of time which this disease may exist in the constitution, before it runs to its last fatal period: and although our experience in the hospital is great, the point of duration is yet undetermined; for with all the advantages which an hospital affords for the multiplied accumulation of facts, there are some points on which the information derived in its wards is defective, and even apt to be erroneous; and amongst these may be reckoned one of great importance—the probable duration of life, under any disease. If a case is much relieved, the hospital physician loses sight of it, and in all probability sees it no more; knowing nothing of future relapses, or of the ultimate result. On the other hand, a very large proportion of his cases are arrived at the most advanced stages of the respective disorders: the circumstances of the patients have been such, as to render them inattentive to the earlier indications of disease; and it is only when they can no longer pursue their laborious occupations, that they are driven, too late, to seek relief. Hence the physician is liable to form a wrong estimate of the progress of the disease under more favourable circumstances; and it is necessary to correct his views by a comparison with the history and results of private practice.

There has not yet, perhaps, been sufficient time since this disease of the kidneys first attracted attention, to say to what extent life may be prolonged while the body is under its influence; but I believe, with care its fatal effects may be kept at bay, and a hazardous life may be protracted for many years. Should that care be neglected, the chance of life will be greatly diminished.

The cases which I now offer will be found to bear upon many points in the history I have just sketched out; and amongst others will tend to illustrate the subject of the probable duration of the disease, and some of the more insidious attacks which attend the fatal termination.

REMARKS ON QUACKERY.

(*Continued from p.* 563).

"*It is immoral.* No rational mind can peruse the puffs and advertisements of the great majority, and perhaps in all cases the

most successful empirics, and imagine they are seriously and conscientiously believed by the writer. The arrogance and bombast of their style; the evident struggle to prosper by depreciation and abuse; to excel in the extravagance of their pretensions; to adapt their remedies to the miserable excesses of the vicious or the distempered cravings of the hypochondriac; all stamp the selfishness of the motives by which they are dictated, and the sordid nature of the reward for which truth and humanity are sacrificed.

"It is impossible, we say, not to be convinced, that the man who pretends to knowledge which every rational and qualified mind utterly disclaims, who lays claim to a discovery which shocks the first principles of reason, must either be the victim of insanity, and the subject of our compassion, or a heartless trafficker upon the blind credulity of his fellow man, and justly exposed to the indignation and contempt of every honest and reflecting mind.

"But it may naturally be inquired, if such is the nature of Quackery, how can you account for its success?

"In the first place, as we have already remarked, it is powerfully addressed, by the very nature and extent of its pretensions, to a strong and absorbing feeling of the human mind—the love of life; while the rationality and probable truth of its assertions, the great mass of the public have no means of ascertaining. They are ignorant of the structure and functions of their body, of the seat and nature of the great majority of the diseases to which it is liable, of the principles which should regulate their treatment, of whether they are capable of cure, would get well of themselves, or are inevitably fatal. They are conscious of little else than suffering, and the desire of relief; they look around for the remedy, and the most confident and unlimited assurances of cure, however preposterous, are eagerly believed, their rational faculties being crippled by the preponderating instinct of self-preservation.

"This result is not confined to the lowest and least educated classes, but ascends through every grade of society, aye, perhaps (to their shame be it spoken) is most in vogue among the noble and the rich, by whose example and patronage it gathers fresh powers and support.

"There is, indeed, in the not wholly unreflecting, an inward misgiving of the justice and safety of the system they are supporting, and secrecy is in consequence employed to screen them from the ridicule or reproof of right and rational minds; and too often the medical man is called in, and his directions *nominally* followed, for the purpose of avoiding any suspicion of the course they are actually pursuing. To justify their imprudence, many often persevere until serious mischief is effected; their attendant is then informed of the real state of the case, he is called upon to repair the consequences of their credulity and deceit, or if not previously in attendance, is sent for, to take off the responsibility of the quack, and be in at the death of his patient.

"Should they happen to escape these injurious effects, or, if as sometimes *must happen*, by a fortuitous adaptation of the means to their particular symptoms, positive benefit has been reaped, they resort to extravagant commendations of the medicine, are unceasing in their efforts to influence their friends in its behalf, ascribing to it powers and efficacy, which they never knew it to possess, but which are gratifying offerings to their elated self-love, and means of involving others in the imitation of their ignorant, though for once successful, folly. There are numerous instances of individuals, who on ordinary occasions act like rational beings, thus becoming the missionaries of delusion, and the advocates of a system, whose principles if embodied in any other department of their social or moral interests, they would shrink from with indignation and disgust.

"They overlook considerations, which when their prejudices are less taxed, are acknowledged to be sacred; they undermine the characters and profession of men for whose vast utility and acquirements they feign respect and admiration, and by wilfully shutting their eyes to those motives of action by which rational beings ought always to be guided, they allow themselves to become, not the innocent, but the guilty agents of heartless and mercenary impostors. Guilty, we say, for our actions are sinful whenever they are at variance with the light we possess, or which it was in our power to attain, and when for the sake of any temporary advantage we run counter to principles whose value and supremacy we abstractedly admit.

"In cases where fatal effects have resulted, there is a natural reluctance on the part of family and friends, to the cognizance of the public through the medium of a legal investigation, and an equally natural unwillingness to disclose either their own or their victim's folly. It is to these causes that we are to attribute the few published instances of this description, and not to their unfrequency of occurrence."

To the Editor of the London Medical and Surgical Journal.

SIR—I am directed by the Council of the Medical Society of London, to inform you that they have selected the following subjects for essays for the Fothergillian medal. For March, 1837, "On the use and abuse of Mercury. For March, 1838, "The Structure, Œconomy, and Diseases of the Ear." The Fothergillian medal is valued at twenty

guineas. It may be competed for by any one, on the following conditions: 1. The Essay must be sent to the Registrar, on or before the first day of December. 2. With it shall be delivered a sealed packet, with some motto or device on the outside, and within, the author's name and designation, and the same motto or device shall be put on the Dissertation, that the Society may know how to address the successful candidate. 3. No paper in the handwriting of the author can be received. I am, &c.

GREVILLE JONES, *Registrar.*

Bolt Court, May 20, 1836.

The London Medical
AND
Surgical Journal.
Saturday, June 4th, 1836.

PUBLIC EXAMINATIONS, HOW FAR THEY OUGHT TO BE CARRIED.

WE insert, in another page, the report of proceedings at a public examination of candidates, for the election of a House Surgeon to the North London Hospital. This institution has displayed a degree of liberality in its regulations, highly creditable to the medical committee which formed them. It has boldly struck out from the path of corruption and chicanery, which has reflected so much disgrace on our other metropolitan hospitals; which has made the system of money influence all-powerful, and has left merit in obscurity; which has depressed the praiseworthy energies of aspiring, diligent, and talented pupils, and has given to the thick-headed possessor of a few pounds sterling, an office, for which he was not only unfitted, but which worthier men had a just and undoubted right to fill: and, by this means, has inflicted an injury on the profession and on the public, that years of reformation can scarcely be expected to eradicate. That the plan pursued by the University hospital will do much to remedy this atrocious system, few who watch the progress of events, will be inclined to doubt. The hospital has not yet been established two years, and it already boasts of a larger number of pupils, than its most sanguine supporters could have expected; while the neighbouring hospitals are almost entirely deserted. It will be said, and justly, that the low fees of the North London Hospital have much to do in the matter. This is another triumph for liberal principle. The fees hitherto taken by hospital functionaries, have been enormous and unjust; but at the hospital in question, the payment of a small fee on entrance, fits the student, whoever he be, to compete for the offices of dresser, clinical clerk, and house-surgeon. The axe has been laid to the root of the tree bearing the fruits of evil, which have so long and so banefully influenced the students of medicine.

Regarding public examinations, we are not inclined to go the length of some of our contemporaries, who would throw them open to the public in general. We are at a loss to conceive in what way this would benefit the profession, or the candidates individually. The public in general, are certainly not competent judges of the merits of the wranglers for distinction, and we do not for a moment believe that the respectability of the profession, in the eyes of the community, would be at all enhanced by the displays that such examinations would exhibit. We consider, indeed, they would have an opposite tendency, if conducted on the principles which regulate the *concours* in Paris, in which the degree of talent, or rather tact, which a wrangler evinces in puzzling his adversary, is looked upon, by incompetent judges, much more favourably than higher attributes which are necessary for a surgeon, and which only can be judged of by a jury of surgeons. If the admission of the general public is for the purpose of seeing justice done to the candidates, then, we say, in this respect it is useless, inasmuch as they are not competent to judge in any way of the subject; they can neither know whether the questions propounded are fair ones, neither can they know whether they are

correctly or incorrectly answered. If the public are merely admitted to witness the triumph of the successful candidate, then we say, their presence might be at once dispensed with; for, as in general only those who are acquainted with the candidates would be present, they would be sure to know the name of the victor as soon as the contest would be decided.

The members of the profession, then, and those only, can be competent judges of the merits of the candidates; and to the profession alone would we allow the privilege of being present at these examinations. It is quite clear, that many an able man in his profession, may shine less in the eyes of the public, than others of inferior merit, but who have a better address, and a more copious flow of language; and here would be another difficulty in the way.

As to what these examinations should consist of, we are rather opposed in some respects to the system pursued by the Committee of the North London Hospital. The examination, we conceive, cannot be too practical; in fact, its extent of usefulness will be in proportion to its being practical. We object strongly to descriptive anatomy alone being considered sufficient; we think that practical anatomy should form the basis of the whole proceeding. The subject should be brought into the operating theatre, and the various candidates dissect certain portions of the body, and demonstrate them to the assembled students and practitioners; this done, then we see no objection to the answering of a number of questions in writing, or *viva voce*. Perhaps, by writing, is fairest to all parties; though, if the assembly are to be *judges* on the occasion, then the *viva voce* examination would be the most proper. We shall not, however, cavil respecting these particulars; we are satisfied at the present, with having seen the system of patronage and money-influence broken in upon, as it has been by the establishment of these examinations. The monopolists, as may be imagined, have been bitter against these proceedings; it is well that they should be so, for it shews how much they feel them: they feel them in their most sensitive part, the pocket, the fees pouring into which have been considerably reduced, since merit, and not money, has bought honour.

ELECTION OF HOUSE SURGEON TO THE NORTH LONDON HOSPITAL, BY PUBLIC EXAMINATION.

The Third Election of House Surgeon to the North London Hospital, by public examination, (without fees,) took place on Monday last;—when, after a pretty severe contest, in which three candidates were engaged, Mr. William Hallam, of Newcastle-under-Line, was declared the successful candidate.

The examination, as usual, was divided into three portions: the first consisting of a series of written questions, the others of operations, and the application of apparatus in public. The written questions were as follow:—

1. Give the relations and structure of the prostate, and the reason why some surgeons consider it prudent not to divide that organ in its whole breadth in the lateral operation of lithotomy.

2. The course and relations of the pudic artery, and its branches—what relation do they have to the operation of lithotomy, and how should incisions be made in that operation, in order to avoid wounding them?

3. What should be done in a case of hemorrhage, coming on from the fourth to the twentieth day after an amputation of the leg below the knee, by the flap operation?

4. If a case of strangulated hernia were brought to the Hospital, what would you do? How would you distinguish a reducible hernial swelling from an abscess, a glandular tumour, and a varicocele?

5. State the symptoms of a foreign body, loose or fixed, in the air passages.

The operations, and applications of bandages, &c., consisted of the following:—

1. Amputate the last phalanx of a finger.

2. Amputate a finger with a portion of its metacarpal bone.

3. Place a ligature on the ulnar artery, in any portion of the lower third of the forearm.

4. Apply apparatus for fracture of the olecranon.

5. Introduce a catheter, and apply apparatus, for the purpose of keeping it in the urethra.

Hospital Reports.

NORTH LONDON HOSPITAL.

Clinical Remarks on Cases of Ecthyma reported in our last. By Dr. A. T. Thomson.

In the first of these cases, you have an excellent opportunity of studying the characteristics of ecthyma, and acquiring the facility of determining the diagnosis in whatever form it may come before you. You will find, in this case, the eruption in every stage of its progress, from the first formation of the phylazeous pustules, of which it consists, to the fall of the crusts formed by them, and the dark red spots that remain long after the crusts have fallen.

The pustules are seen in this case crowded upon the thighs and the lower part of the abdomen; they are seen both in the distinct form, varying in size from that of a small lentil to the breadth of a sixpence, and also confluent, or running together in irregular clusters or patches, not unlike, unless in their pustular character, the clusters of severe herpes *zoster*. If you examine the first appearance of the pustule, you will perceive that it is a red, circumscribed, inflamed, minute speck, which gradually rises in the course of two or three days; its apex fills with pus whilst its base remains red and hard. After a few days more, when the pustules are distinct and of a moderate size, the pus dries, and a dark coloured scab forms, that is adherent for some time, but at length falls off, and leaves the dark coloured spot I have already described. When the pustules are large, broad, and less raised, and especially when they cluster, you will observe, as in the specimen before you, that the suppuration spreads nearly over the whole of the elevation, so that the base, in some instances, is scarcely perceptible, and the pustules assume much of the appearance of the bullæ in pempholyx; and in those which you observe in the palm of the hand, and on the breasts, the ulcerative process is rapidly induced, and the cuticle thrown off, leaving a clear surface below, which readily cicatrizes when treated by emollient applications. I would also direct your attention to the variety of prominency which the pustules assume, according to the parts of the body on which they are seated: thus, they are most prominent in the extremities, and on the face and the scalp, when they appear there; but much less raised, and more confluent, in the mammæ and the trunk of the body generally, where also they contain less pus, in proportion to their size, and are apt to terminate rather in scales than in scabs.

To one who should examine the eruption carelessly, or only as it appears on the hands, the wrists, and the legs, the disease might be readily mistaken for *purulent scabies;* but the previous history of the attack, and its non-contagious nature, demonstrate the error of such an opinion. In scabies of the worst description, the eruption is never preceded by the febrile symptoms that occur in ecthyma. These are loss of appetite, disordered digestion, pains in the limbs, restlessness, headach, a quick small pulse; hot, dry skin, a red, glazed tougue, and a spongy tender state of the gums; which are always, more or less, forerunners of the eruption in ecthyma *febrile*. The fauces, the pharynx, and the Schneiderian membrane are, also, generally more or less influenced—circumstances that do not occur in scabies. The sensation attending the eruption, also, is rather that of stinging and tingling, than the intolerable itching that accompanies scabies. In one respect, the diagnosis is rendered sometimes difficult by the two diseases appearing in the same condition of the habit; namely, that which is seen in those persons borne down by poverty, in whom that congestive state of the abdominal viscera exists, which accompanies cachexy, and often results from improper and defective nutriment, great mental anxiety, unusual fatigue of body, night-watching, nursing, as in this case, without proper means of supporting the strength, uncleanliness, and dwelling in damp, dark, cold or confined habitations. In such unfortunate circumstances the two diseases often appear together, the one arising from contagion, the other from the wretchedness and local evils to which the patient is exposed.

When the disease does not assume so rank and decided a form as in the instance before us, it might be mistaken for lichen *urticatus;* but the distinction between the vesicles of that form of lichen, and the pustules of ecthyma, at once direct us in forming a correct diagnosis. When the eruption appears in ecthyma *febrile*, the febrile symptoms diminish, but as the pustules rise in continual almost daily, succession, it never wholly ceases; and when the disease is severe, as in the case before us, a degree of hectic supervenes, and an erethism, which often depresses both the bodily and mental energies to an alarming degree.

Both the legs and the feet often become œdematous, and the face bloated. The disease displays its most severe forms in spring and autumn, and in cold and damp weather, such as has marked the present spring. This form of ecthyma is more commonly seen in adults than in the young. It is sometimes symptomatic of *gastro enteritis*, in which it is often critical, and it is not unfrequently the result of the application of irritating matter to the skin of those predisposed to the cachectic condition of habit in which it usually arises.

With regard to the

Treatment

of this form of ecthyma, much depends on the period of the disease at which our advice is required. When the febrile symptoms are considerable, when the patient is of a full habit, and the local inflammation attending the eruption is severe, our first object is to reduce the excitement; but much caution is here requisite in the use of the lancet, owing to the generally weakened or low condition of the patient. In one case I did not consider myself authorized to employ even small venesections, although these are often beneficial; nor even to use local bloodletting, either with leeches, or by the cupping glass. When gastric symptoms are present, the latter mode of abstracting blood is always beneficial; but here it was not required. On reflecting upon the previous history of the case, I was inclined to refer much to the disordered state of the biliary organs, and with that view, and to act generally on the capillary system, I ordered minute doses of the biniodide of mercury, but you saw that it very rapidly affected the mouth, and could not be continued—a circumstance by no means uncommon in this form of ecthyma. You should always keep in recollection, that even in the smallest doses, mercurials produce salivation in ecthyma *febrile;* and, owing to the highly irritable condition of the system, that *eczema mercuriale* is very apt to display itself and endanger the life of the patient. When mercurials can be continued, it is useful to combine them with antimonials; but I prefer doing so in doses consonant with the circumstances of the case, in preference to the use of Plummer's pills, the usual form of combination employed.

When, owing to the irritable condition of the system, mercurials are not advisable, nothing answers better than decoctions of cinchona bark, largely acidulated with diluted sulphuric acid. You have seen in another case, one of purulent scabies, the rapid manner in which this combination allays irritation, and the great extent to which the acid may be carried. In the present instance you will find that it will prove equally serviceable. The diet should be light, but nutritive. A continuance of these means are generally sufficient to cure this disease; but when the attack proves tedious, after bringing up the strength by these means, we may again have recourse to the alterative mercurial course, in conjunction with taraxacum, with every prospect of success. With respect to external means, it is obvious that the tepid bath is indicated; and this is rendered more useful by the addition of ℥ iv of liquor potassæ, for every gallon of water used. I have not ordered it in this case, on account of the expense; but this will not weigh with me, should the disease not benefit by the use of the common tepid bath.

You have, perhaps, been surprised at my ordering the diluted tar ointment as a topical application; I have seen it most useful in cleansing the ulcers, such as exist in the hands of our patient, where poultices are applied over the dressings. But when there is much irritation and itching or tingling, the application which I first proposed to the profession in such cases, is that which you will find most useful, viz., an ointment composed of

℞. Plumbi acetatis, ℥ ss;
Hydrocyanici acidi. ℥ iij;
Unguent cetacei, ℥ iij.
M.

In the numerous cases that I have witnessed of this loathsome disease, I have seldom seen it resist this mode of treatment. When there is much restlessness, the best opiate is the sulphate of morphia in doses of gr. ss. dissolved in water, largely acidulated with diluted sulphuric acid. In ecthyma *syphiliticum*, the pustules are always distinct, seldom very numerous, and most frequently on the legs; the fluid contained in them is not pure pus, but a sero-purulent matter of a greyish colour; livid, copper-coloured areloa; crusts scaly, and very adherent; ulceration sometimes, though not often, occurs. The colour of this species of ecthyma is more violet than the other syphilitic eruption, often accompanied with sore throat, periostitis and iritis; it is most common in infants. In this case the disease was communicated by the saliva inoculating the nurse. A case of a similar kind is related by Professor Wallace. Mr. Carmichael thinks mercury unnecessary in such cases; he employs antimony, sarsaparilla, &c. My own opinion is in favour of mercury, and I prefer the biniodide of that metal. I have prescribed a combination of the hydriodate of potassa, and the hydriodate of iron, with a view of improving the tone of the habit, at the same time that the alterative influence of hydriodate of potassa is exerted on the secreting organs.

[Since the above Lecture was delivered, a few days since, both the patients having gone on with the medicine last mentioned in their cases, have steadily and materially improved.]—*Rep. Lond. Med. and Surg. Journ.*

Cut Throat—Division of the Trachea, Œsophagus, &c.

A man was admitted into the hospital on the 24th of May, who had attempted to destroy himself by cutting his throat; he was admitted a few minutes after the attempt. It appeared that he had been labouring under symptoms of delirium tremens for some time, and that opium had been given for their removal. The incision had completely divided the muscles of the neck; the thyroid cartilage, just above the rima glottidis; the pharynx was laid completely open; the trachea was contracted considerably downward towards the chest, and was hidden by the divided integument. No vessel could be discovered which could have furnished so much blood as he lost before his admission. Venous blood continued to ooze from the divided parts for some time after his admission, and sometimes threatened immediate suffocation; he was relieved by violent fits of expiration. A hook was passed through one of the cartilages of the trachea, which was held forward by that means, the blood being carefully removed by a sponge from the bottom of the wound. Difficulty of respiration increased in consequence of infiltration of blood into the submucous cellular tissue surrounding the margin of the glottis. Three carotid arteries were exposed to view, and were seen pulsating in the lateral part of the wound. When the oozing of the blood had subsided, which was late in the evening, the trachea was kept in its natural position, by passing a suture through the cartilage on each side, and fixing it to a bandage applied round the back of the neck and beneath the axilla. He went to sleep comfortably after this, having been placed on his side; he passed a quiet night; pulse 96.

May 28. Going on pretty well since last report; he allays his thirst by sucking a sponge, dipped in a little acidulated water. Yesterday, some milk and eggs were thrown into the stomach, by means of the stomach pump.

30. Some wine, beef tea, and milk were given him to-day.

June 1. Continues in a favourable state; several sloughs which had formed were removed to-day by the scissors; the parts are becoming daily more reconciled to their unnatural situation. He will not allow anything to be placed over the wound—he expresses himself in writing.

LONDON MEDICAL SOCIETY.

Saturday, May 30th, 1836.

DR. WHITING, PRESIDENT.

Disease of the Testicle—Adjournment of the Society.

Mr. Pilcher related a case, which for upwards of twenty years had been considered a case of hydrocele. The patient was a gentleman about 60 years of age, who twenty-eight years before, had a swelling come on in the right side of the scrotum; the surgeon who attended him said that it was hydrocele, but recommended that nothing should be done for it. The late Mr. Heaviside had seen the patient some years after this; he also gave the same opinion, and ordered him to wear a suspensory bandage. The patient had been in very good health up to the last five or six years, when he had a slight attack of paralysis, which was subdued, and left only a slight degree of debility. He had suffered no pain in the tumour, but it had become excessively inconvenient from its great weight, and it had excoriated the thighs. The left side of the scrotum had begun to enlarge three or four years since, but it had not attained to any considerable size; but about six months ago, he struck this portion of the scrotum as he was getting over a gate, and the consequence had been a rapid and immense enlargement on that side; the tumour now would scarcely go into a good-sized hat; the penis is almost completely buried in it, only the extremity of the prepuce being visible; the tumour was exceedingly heavy. There was distinct fluctuation at the anterior portion of the right side; there was also indistinct fluctuation on the left side, but more distinct at some portions of it than at others. The cord is somewhat, but very little enlarged. The patient's son, who is a surgeon, also considered it hydrocele. Mr. Pilcher was consulted, a few weeks since, on the case; he doubted whether it was hydrocele simply; but there was evident fluctuation on the right side, and he tapped it, removing nearly a pint of a darkish-coloured albuminous fluid, such as is frequently found in encysted dropsy. He tried to tap the left side, and for that purpose punctured the most prominent part of it; a very small quantity of fluid was evacuated, and though it was punctured five or six times in various parts, there had been but a very small quantity of matter evacuated, and that of a very dark grumous character. The tumour was, however, lessened in size, and the patient was afforded considerable relief. Tapping was resorted to from time to time, but the size of the tumour was not much reduced; a purulent kind of discharge continued to ooze from the incisions on the left side. Mr. Pilcher, perceiving how matters stood, was anxious for some further steps to be taken, but requested that the opinion of Sir A. Cooper might be taken on the subject; a consultation was accordingly held, and Sir Astley considered that it was hydrocele of the encysted kind, one divided by cells produced by adhesive inflammation. Some of these cells had been penetrated by the trochar. Sir Astley recommended that the

opening in the left side of the scrotum should be enlarged; it was so, and a large quantity of a substance resembling sponge whose texture had been destroyed by maceration, was evacuated; it was darker than fibrine; a large quantity of fluid was evacuated with it; the tumour had since considerably decreased in size. The parietes of the cyst were exceedingly firm and dense, cartilaginous, and about an inch in thickness. The testicle could not be felt separate from the mass, portions of which were now being discharged. Mr. Pilcher requested the opinion of members on the case; he had no doubt that the right side was hydro-sarcocele following hydrocele. What was the disease on the left side?

Mr. Blenkard thought that the left side of the scrotum was evidently affected with varicocele, the spongy character of the discharge being dependent on the fact of the blood having remained a considerable time in the affected part.

Mr. Headland conceived that it could not be as stated by the last speaker; for blood so effused would act as a foreign body, produce a great degree of irritation, suppuration would come on, and serious consequences ensue. He was inclined to consider that the substance discharged simulated that observable in the first stage of fungus hæmatodes, but that it had sunk down for want of vitality.

Mr. Jones inquired what would be the effect of allowing serum to remain a long time in cavities; he had observed in ovarian dropsy, that when the fluid was removed at an early stage, there was much less thickening of the parietes of the cyst, and the fluid was much thinner; but, on the contrary, when the fluid had been allowed to remain in the cyst for a long period, it was very much thickened, as were also the walls of the cavity.

Mr. Pilcher had considerable doubt of the left side being hydrocele. He (Mr. P.) believed, with Mr. Blenkard, it was possible that the veins might have been ruptured on the left side of the scrotum, by the blow which was received by the patient about six months before he saw him, and blood extravasated; but chronic inflammation had been going on for a long time.

Mr. Bryant said, that after an opinion expressed by Sir A. Cooper, who had made this class of disease his particular study, it was very presumptuous in him (Mr. B.), probably, to give an opinion—but he had seen the case with Mr. Pilcher, and his impression at the time certainly was that the testicle itself was diseased; and he thought that the peculiar matter which was discharged consisted of portions of the disorganized testicle itself. He conceived that if it was simple effusion of blood into the tunica vaginalis, that they would have been more able to discharge the contents of the cyst. He thought the patient would stand a better chance if the testicle itself were at once removed.

The President had seen similar cases. He agreed with Mr. Bryant, that it was disease of the testicle itself, not exactly of a malignant character, not schirrus or fungus hæmatodes—but more analagous to the disease termed ovarian dropsy. He should certainly recommend castration. He considered that the discharge of the grumous fluid was merely an accidental circumstance, and that there was disease of the testicle long before accumulation of this fluid took place.

Mr. Pilcher had considered, before Sir A. Cooper saw the patient, that the testicle itself was diseased; and had therefore said, that if the patient had been twenty years younger, that he should be inclined to adopt one of two proceedings—either to lay open the tumour from end to end, which, however, he considered a hazardous step; or to remove the whole scrotum, which he was ready to do, at any time the patient might request it; but the patient was satisfied with what had been done; he had found so much relief from the steps which had been taken, that he had no wish for any further operation.

The President then stated, that this was the last meeting of the Society during the present Session, and that it was now adjourned until the last Monday in September.

On Saturday evening last, as there were only five members present when the Chairman took his seat at the *Westminster Medical Society*, and as there was no communication made from any of them, the Society adjourned until the first Saturday in October.

Erratum.—It should be a friend of Mr. Quain's, and not Mr. Quain himself, who was affected, as stated by that gentleman in the report of the Society last week.

MEDICO-BOTANICAL SOCIETY.

Wednesday, May 25, 1836.

DR. RYAN IN THE CHAIR.

Dr. Sigmond read a paper, by Mr. Allsop, of Sloan Street, Chelsea, on an improved method of preparing vegetable infusions, and another by Colonel Gilando, on the medicinal plants of a certain district of South America.

A paper was read on the use of oil of turpentine, in cases of iritis, as recommended by Mr. Hugh Carmichael, of Dublin; on which Dr. Stoker, of that city, remarked, that he had witnessed some cases treated by this remedy, which relieved, but when employed alone, it frequently failed. He also stated, that it was now seldom employed alone, in iritis, by the Dublin surgeons.

Dr. Sigmond, and Dr. Cadet, made some observations on the mode of preparing

castor oil; and the former stated that the senna lately imported, was of a very inferior description. Mr. Judd inquired whether there were any characteristic marks, which distinguished the spurious from the genuine medicine. Dr. Sigmond replied, that the spurious article was a mixture of various leaves, which could be easily distinguished.

It was then announced that Dr. Ryan would lecture on the use of iodine in diseases of the heart, and on other new remedies, at the next meeting, June 8.

ROYAL COLLEGE OF PHYSICIANS.

Monday, May 30, 1836.

SIR HENRY HALFORD IN THE CHAIR.

A paper was read by Dr. F. Hawkins, the Registrar, from Dr. Watson, of King's College, on transposition of the thoracic and abdominal viscera, in which the author narrated some cases that occurred in his patients in the Middlesex Hospital, and also a case furnished to him by Sir Astley Cooper. The paper was rather long, and was listened to with great attention. The meeting was rather thinly attended. The last meeting will be held on Monday, June 27th, inst.

CASE OF EXTRA-UTERINE FŒTATION CURED.

Towards the end of November, 1828, Dr. Harder was summoned to attend the accouchment of a female of 30 years of age, of a strong constitution, but who had been considerably reduced by recent suffering. Her first labour, which had occurred about two years previously, had terminated naturally. During the early months of her present pregnancy, the menstruation had at first been suspended, but had regularly reappeared for three or four months, and during the latter months a serous discharge had periodically appeared, instead of the catamenia. The first movements of the fœtus, being much more remarkable than in the former pregnancy, were experienced about the beginning of May. More lately she had suffered from griping pains, affections of the heart, diarrhœa and vomitings. The fœtus movements were last felt about the end of September, the period when the labour ought to have occurred. The above symptoms continued increasing in intensity until the latter part of October; when a midwife, after making repeated examinations, promised a speedy delivery. One day, she even attempted to rupture what she believed to be the membranes, thereby producing very considerable pain, without being able to accomplish the object in view. From this time the patient did not manifest any symptom of approaching labour.

On Dr. Harder examining the woman, he found an irregular circumscribed tumour, situated in the abdomen, above the pubis. The limbs of the fœtus could be partially distinguished. The nipples had not the appearance of those of a pregnant woman. Upon examination, the head of the fœtus was distinguishable through the wall of the vagina, which was thickened and swollen, situated between the rectum and the uterus, which was projected forwards and upwards. The mouth of the uterus and its neck, which appeared stretched, were resting upon the arch of the pubis, and could be scarcely felt.

There appeared to be only one mode of effecting the delivery, and that was by dividing the wall of the vagina in that spot corresponding to the head of the child. This operation, however, was obliged to be deferred, in consequence of the absence of the family surgeon, and palliatives only were therefore ordered.

Dr. Harder saw her again in the month of April, 1829, when she was still undelivered of her burthen, was exhibiting all the symptoms of hectic fever, and had a fetid discharge from the vagina. The tumour was now more closely approximated to the pubis, and could be more easily distinguished in consequence of the increased thinness of the female; a forcible pressure applied to it, induced considerable pain, and excited desires to evacuate the rectum or bladder; by the *toucher* the head was found to have descended lower into the pelvis than at the period of the first examination. An opening was discovered in the back part of the vagina, through which the finger could detect the unequal edge of the perforated cranium, and could be passed into the cranial cavity. After much exertion, attended by very considerable pain to the patient, the bones of the cranium, and some of the cervical vertebræ were extracted through this aperture. The operation was followed by a comfortable night's sleep. On the next day the other parts of a female child, completely putrefied, were, notwithstanding the frequent faintings of the patient, gradually withdrawn; a very abundant flow of fetid pus immediately followed the removal of the body, and no trace of membranes, placenta, or umbilical cord could be detected.

On the evening of the same day, the uterus was found to have approached more nearly to the axis of the pelvis, and the finger could distinguish, through the vaginal aperture, the posterior surface of the uterus, the colon, the mesentery, and the rectum. The purulent discharge gradually diminished, the opening closed, and after some weeks' suitable treatment, the health of the female was completely restored.—*Allg. Med. Zeitung und Archives Generales.*

COLD INJECTION FOR ANATOMICAL PREPARATIONS.

PROFESSOR RETZIUS, of Stockholm, has for many years employed a cold mixture, composed of twelve parts of minium, seven parts of boiled linseed oil, and three parts of spirits of turpentine, for injecting the vessels of anatomical preparations. He directs the minium to be very well triturated and dried in a warm stone mortar, and then gradually mixed with the oil and turpentine — this latter, having been previously well rubbed up with the oil, while yet warm. Twenty-four hours after the use of the injection, it hardens, and is represented to have the advantage of neither softening nor being liquefied by heat.—*Annales de Chemie Medicale.*

MIXTURE OF OPIUM WITH OILS, &c.

M. NEUBER, to obviate the difficulty of mixing the tincture of opium with oleaginous fluids, when required for external use, has digested, at a moderate temperature, one part of crude opium, with sixteen of oil of infused henbane, then separating the fluid, after a suitable period, by expression. M. Neuber tries this oil with success, either alone, or mixed with ointments, or with liquid ammonia, as a liniment.—*Pfaff's Mittheilungen und Annales de Chimie Medicale.*

EMPLOYMENT OF SULPHURET OF CARBON IN RHEUMATISM.

PROFESSOR OTTO, of Copenhagen, has lately published some remarks upon the use of the sulphuret of carbon of Lampadius in rheumatic and arthritic affections. He prescribes four drops of a mixture, composed of one part of the sulphuret of carbon, and two parts of highly rectified spirits of wine, to be taken every two hours; he also directs the affected parts to be rubbed with an embrocation, containing one part of the sulphuret of carbon, and two parts of olive oil. The cure, he states to be ordinarily effected in a period of eight or fifteen days.

In a case where the patient had suffered for three months, under an obstinate rheumatic affection of the inferior extremities, and lancinating pains of a similar nature on the left side of the chest, and in which this treatment produced little benefit at the end of a fortnight, M. Otto persevered with the action, but discontinued the internal employment of this agent, substituting pills composed of calomel, antimony, aconite, &c. With the occasional use of these pills, the cure was perfected in three weeks.—*Annales de Chimie Medicale.*

POISONING BY THE JUICE OF THE RANUNCULUS BULBOSUS.

A WOMAN, whose child was afflicted with lice, that resisted the application of red precipitate, was advised to wash the child's head with the juice expressed from the ranunculus bulbosus, (grenouilette). For this purpose she collected the juice of the plant, and put it in a bottle, which she placed in the cellar along with other bottles containing beer.

This bottle was subsequently brought up instead of a bottle of beer; a glass was filled with the fluid, and was drank by the husband, after having been tasted by a child of three years old; on a second glass being filled, the mistake was discovered, and the man complained of the unpleasant taste of the liquid, but did not at all suspect it to be poisonous.

Four hours afterwards, violent vomiting commenced, accompanied by severe cholic, and excruciating pains, that continued until the man's death, which happened on the second day after the accident. The child was also afflicted with vomiting and cholic, from the small quantity which it tasted, but its life was expected to be preserved.—*Annales de Chimie Medicale.*

ACTION OF CANTHARIDES AND CANTHARIDINE.

M. TOMMASO PULLINO has lately been engaged in making some experiments with cantharides and cantharidine, with a view to ascertain their action upon animals, upon man in a state of health, and upon man suffering under disease. From those experiments, immediately interesting our readers, we may select a few, illustrating physiologically and therapeutically the operation of these agents. M. Pullino, having had his pulse examined, took, while fasting, a grain of cantharidine, at twice; and experienced afterwards a general shivering; a feeling of coldness along the vertebral column; his skin became pale, his head heavy, his pulse lost five strokes in the minute, and, at the end of four hours, he voided a very abundant quantity of urine. In a fortnight afterwards, he repeated the experiment, taking at four doses two grains of cantharidine, during the morning; after the second dose, he was attacked with a deafening pain of the head; after the third, he experienced vertigo; the skin was bedewed with a cold sweat, and when the action of the medicine was completely developed, he could scarcely stand. The arterial pulsation diminished seven beats in the minute, and notwithstanding his taking very little drink, he passed a very large quantity of scalding urine. In the after-

noon he took some alcohol, and afterwards ten drops of liquid ammonia in water. The vertigo ceased; the urine during the night lost its scalding property, and the next day he suffered an uncommon degree of lassitude.

M. L—— was attacked with pleurisy. The pain continued even after a second bleeding, and the expectoration had a sanguinolent unhealthy appearance. Three grains of powdered cantharides in solution were directed to be administered during the day. The dose was gradually increased to ten grains; the patient had constant perspirations; the quantity of urine was not augmented; the expectoration assumed a more natural appearance, the pain subsided, and a cure was effected, after the disease continuing sixteen days, and the administration of 85 grains of cantharides.

L. F—— was seized with carditis, and an aneurism even was apprehended. After having unsuccessfully employed several different medicines, she took cantharides in powder to the amount of 112 grains, after which she experienced remarkable relief; at first the urine was scalding, but by drinking freely after each dose, the urine flowed more abundantly.

G. P., who was convalescent from a disease that necessitated repeated bleedings, now suffered very grievously from arterial palpitations, that were so distressingly felt in the left ear, as to prevent his taking any repose. At short intervals, he took, in four doses, a grain of cantharidine; vomiting ensued—the pulse became small and frequent; he had shiverings, vertigo, torpor of the superior extremities, and other signs of an *hyposthenic* action having been carried too far. Æther was immediately prescribed, and afterwards opium. The treatment was then changed, and the patient, after employing strengthening diet, with wine, was completely restored.

M. Pullino has added another analogous case, equally devoid of detail. His object is to present the powder of cantharides as an hyposthenic (hyposthenisante), according to the term employed by the partisans of the Italian doctrine. His work, as a report of experiments with these medicines, is sufficiently interesting: but in the applications he has made of these agents to therapeia, it loses this character.—*Annali Universali, and Archives Generales.*

MEETING OF THE FRIENDS AND PUPILS OF SIR C. BELL.

On Thursday afternoon, a meeting of the friends and pupils of Sir C. Bell, took place at the Hunterian Theatre of Anatomy, Great Windmill Street, Dr. Latham in the chair; for the purpose of stating the amount of subscriptions already received for the purchase of the Testimonial which is to be presented to Sir C. Bell, on his leaving London. The amount of subscriptions actually received, is 115*l.* 10*s.* 6*d.*; but it is calculated that 130*l.* at least, will be procured before the end of the month, at which time the subscription will close. Some conversation took place respecting giving more publicity to the subscription; but it was considered by a majority of the gentlemen present, that as it was in reality a private affair, being chiefly the friends and pupils of Sir C. Bell who had subscribed, a sufficient publicity had been given by sending round circulars, which had been done by the committee appointed for the purpose of conducting the affair. We certainly agree with Mr. Travers, who spoke chiefly on the side of further publicity being given, that such a step would undoubtedly add to the number of subscribers. We think with him, that many of the old pupils, and even friends of Sir C. Bell, do not know that a subscription of the kind has been set on foot. The list of subscribers contains all the most eminent names in the profession; but we do not see why it should not contain a vast number besides. The career of Sir C. Bell, as a surgeon and physiologist, in this metropolis, has been a very splendid one; and we should be anxious to see the names of all the friends of science appended to the subscription list, which closes on the 30th of June.

BOOKS.

A Lecture introductory to a Course on Midwifery, and Diseases of Females and Children, delivered at the Theatre of the Anglesey Lying-in Hospital, by G. T. Hayden, A.B., Member of the Royal College of Surgeons, Ireland; Surgeon to the Anglesey Lying-in Hospital, &c.

The American Cyclopædia of Practical Medicine and Surgery. Parts XIII, XIV.

The American Journal of the Medical Sciences. Feb. 1835.

The Calcutta Journal of Medical and Physical Sciences. 1834 and 1835.

NOTICES TO CORRESPONDENTS.

J. S. T.—We shall feel obliged for the communications.

An Inquirer.—The appointments at King's College are not filled up as yet.

Medicus.—The plan is not matured, but it being completed.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 20. SATURDAY, JUNE 11. Vol. I.—(1836).

A LECTURE

INTRODUCTORY TO

A COURSE ON MIDWIFERY,

AND

DISEASES OF WOMEN AND CHILDREN.

elivered at the Theatre of the Anglesey Lying-in Hospital.

By G. T. HAYDEN, A.B.

lember of the Royal College of Surgeons, Ireland; Surgeon to the Anglesey Lying-in Hospital, &c.

ENTLEMEN—I must beg your indulgence r the imperfect and hasty view which I ave taken of the several subjects about to e brought before you on this day.

The time allotted to a lecture necessarily recludes the possibility of doing each subct justice, when a group of important matrs press forward and demand our serious nsideration.

The period has arrived when the most assive should become active; when the actitioner must stand up for his professnal rights, and also for the overthrow of odious system of monopoly. *Some* have nly endeavoured to prove that the obstec branch of surgery was one of minor portance. They would exclude the acucheur from a participation in those prieges and honours which he so justly erits; nay more, an individual, Sir A. rlisle, has dared to designate his practice a craft, and himself as an impostor. Far ner views are entertained by Mr. Warburn, the great medical reformer of the pret day. *He* esteems this branch of sury of paramount importance, and deving of equal respect when compared h any other department of the healing

Entertaining such opinions, he will, doubt, labour with his usual energy to der the law, with respect to the practice the teaching of midwifery, satisfactory decisive.

The subject of the present course of lecs is one which, from its very title, is ulated to insure attention—the consiation of obstetrics and the diseases of

women and children. Certainly there are no associations more dear—more interesting—more valued than those of home. What constitutes the chief delight and charm of the domestic circle? Are they not the fond care, the smiling welcome, the tender love of the mother, the sister, and the wife—or the prattling of the sweet little innocent, "who climbs the knee the envied kiss to share?" Shall we not esteem the labour as light, the time as well spent, the pleasure as inexpressible, when our efforts to avert disease, or relieve the sufferings of those so linked as partners of our joys and our sorrows, are crowned with success?

In every clime—amongst every variety of man—every grade of society—the love of women and children grows with his growth, and strengthens with his strength; the rude and uncivilized barbarian of the frigid zone; the courteous and polished inhabitant of the southern region, alike acknowledge the sovereign sway of woman and her endearing offspring. It is universally true, that in proportion as man advances in civilization, in the same ratio does his solicitude increase, to the like extent are his best efforts directed, to acquire such knowledge as will contribute to the health, comfort, and happiness of the objects of his affection—women and children.

The extent of this, in our times, is commensurate with the rapid march of intellect of the present day; but, perhaps it is a circumstance more to be lamented than rejoiced at, that often *exclusive attention* is devoted to the cultivation of the intellect of young people of both sexes at such *early* ages; thus bringing about a premature failure in minds, often naturally too precocious. I do not object to a fair proportion of cultivation of the nobler part of our nature at all times, but I seriously object at *at an early period of life* to *intense* application to study, and to abstruse objects for consideration, owing to the necessarily injurious influence thus exercised on the complete development of both mind and body. It is a violation of common sense to put the boy to man's labour—to command the dwarf to raise the giant's load. Too often have I seen the baleful conse-

quence of confining children during the greater part of the day, with a view to making their literary progress the admiration and the envy of their neighbours.

"The most intelligent child that ever was seen—every man's own child."

In such instances the health of the children is often seriously undermined before the parents or guardians take the alarm; some organic derangement, not unfrequently hydrocephalus, has now to be contended with, owing to the great excitement of the brain, and the medical practitioner is compelled, in many cases, to deliver a most unfavourable prognosis. The philosopher may, at the moment, smile and consider the time as misspent which is occupied in the hopeless pursuit of a butterfly, or in urging the revolving hoop over the grassy plain. But he will, on mature reflection, say with the sage, there is a time for all things. He will exclaim, in the language of the Omniscient Disposer of all things, the child should think and act as a child. Seemingly idle pursuits are but the dictates of nature; it is the age for physical, not mental development; for the wholesome exercise of the muscles, not for the injurious employment of the brain; the season for the accumulation of health, not for the dissemination of the baleful seeds of disease. Let us not suffer the scenes of youth, "when every sport can please," to be embittered by irksome and unprofitable employment, and cultivation utterly unsuitable to such tender years.

It may be said that the medical attendant has nothing to do with the fashion of the day—he should not interfere with domestic arrangements—but surely such a one must place within too narrow limits the comprehensive duties of the physician, who is conscientiously bound, not only to point out the mode by which disease is to be treated, but also *to explain* the advantages to be obtained by a strict attention to the *rules of prevention;* the value of which must be esteemed of paramount importance. Hence the necessity of closely attending to every circumstance connected with the moral and physical development of man.

The study of human nature, in all its varied aspects, is amongst the first requisites for a good physician, more especially of him who practises much amongst women and children. When fully aware of the reciprocal influence of mind and body, we can readily account for the apparently inexplicable connexion between the animal and intellectual portions of our being.

During confinement, more especially in first cases, there are considerable apprehensions usually entertained both by the patient and her friends; this depressed state of the nervous system, even amongst the most sanguine and sprightly, is commonly observed, either as a premonitory or attendant symptom upon labour; consequently, it becomes necessary to cheer the drooping spirits of your patient—make light of her illness, and point to the reward which is being obtained, for her patient and cheerful endurance of unavoidable sufferings. It is a popular and just remark, that those women who think lightly of labour, who are smart and active, of a mild, patient, and contented disposition, have the shortest and safest labours. While, on the other hand, those of a desponding nature, and opposite habit and disposition, are predisposed to the occurrence of slow labours—to horrors, and even, in some cases, to convulsions and mania either as an attendant upon, or sequel of confinement. The law takes cognizance of this apprehension on their part. Should a woman be desirous to father a child on a particular individual, the law will receive the oath of such individual as testimony before confinement, but *not after* this event. The influence of the state of mind on labour may be proved by a thousand facts. I shall mention one—I was called upon to attend a lady in her confinement in consequence of the absence of her regular attendant. On hearing that a stranger was his substitute the pains, which had been previously well marked and regular, completely ceased, and it was not until she was assured, that her medical friend would soon be with her, and that I was perfectly competent to act in his stead, that tranquillity was restored, and the pains were renewed.

Gentlemen—It is commonly offered as an objection to entering upon a profession that it is "so overstocked;" but, I am strictly of Swift's opinion, that there is always room in a crowd; the witty Dean on being asked where, replied "above their heads, or between their legs." I, of course, tell you to aspire to the former position. Providence has kindly made the world wide enough for us all, but he requires us to assist ourselves. Rest assured that success awaits those, who by well directed efforts, patience, perseverance, and prudence, labour to deserve it.

There is no profession under the sun which presents so fair an opening, so broad a way to eminence and distinction—it needs not the foreign aid of connexion and interest; in fact, those collateral circumstances are of little moment. For, when a patient or his friend considers that health and life are at stake, he will not be disposed to look for the practitioner, whose greatest merit may be his family and connexions; but he will select the man who has been the architect of his own reputation, and whose fair fame has been erected on the broad basis of public estimation and approval.

You may naturally ask, where shall we find this broad and open road to professional reputation? I may briefly answer, in pra

tice amongst the *poor*. Here the door lies constantly open for your admission—you are always a welcome visiter; here is an opportunity afforded not only for the display of your professional skill, but also for the exercise of those important relative offices which are the bounden duty of the Christian, the neighbour, and the man. Here are associated the most powerful incentives to action, the discharge of a religious and moral obligation—the judicious support of your own interest, and the benevolent exercise of those talents which have been bestowed for the benefit of suffering *humanity*. Look to those who have held, and now hold the highest stations in the church, the senate, the bar, and our own profession. Are they not those who by talent, industry, and sagacity, have overcome a host of adverse circumstances, and ultimately triumphed, gloriously triumphed by obtaining the highest honours; the more gratifying, as they are the well-earned rewards of personal exertion? Why should we the less admire a noble river because we can step across it at its source?

Do not, I intreat of you, be disheartened, should your prospects appear dark, dreary, and discouraging.

Tu ne cede malis sed contra audentior ito
Quam te Fortuna sinat.

Take the foregoing as your motto. Let hope cheer you; let judgment guide you; let industry be yours, and you will find that the sunshine of prosperity will quickly gladden your path.

I would strongly recommend you to abstain from attaching yourself to any party, religious, political, or medical. You cannot fail to observe how our country, "so blessed by God, and cursed by man," has been decimated by party spirit and civil broils. It is but logical to infer that if the Universal be true, the particular deduced therefrom cannot be false.

Avoid making enemies, but do not compromise your feelings and sentiments. Succumb to none; uphold the independence of your nature like men. Be as wily as the serpent, but as harmless as the dove. Be not overawed by the authority of the great man, he is not infallible; take not his *ipse dixit*—it is the age for investigation.

"Nullius addictus in verba jurare magistri."

With reference to the necessity which exists, that the obstetric branch of our profession should be undertaken by men of scientific attainments; and also, that such practitioners should possess a considerable share of medical and surgical information: I would not be disposed to dwell, for a moment, on such an obvious truism, but that, in the evidence lately given before the Medical Parliamentary Committee, an attempt was made, not only to undervalue the services of the obstetrician, but also to brand him with the opprobrious epithet of "impostor." I allude to the evidence of Sir A. Carlisle, while under examination by Mr. Warburton.

The practice of this Institution, within even the last Session, affords numerous cases in proof of the vital importance of this branch of surgery. In these cases the interposition of art was the means, under Providence, of saving many lives.

I must not pass over in silence a mode of instruction, which is allowed upon all hands to be most useful; nay, in very many instances, almost *indispensable*. I allude to the plan of examinations in the several departments of your studies, which is popularly called in this country *grinding*, in England, *cramming*. Indeed, its general adoption is the best proof of its acknowledged value and advantages. The College of Surgeons in Ireland, has the honour of being the first institution of the kind which required a collegiate course of study, and made the answering at half-yearly examinations indispensable, as preparatory education previously to obtaining Letters Testimonial. A system which, you are all aware, has worked so well in Universities, as regards Students in Arts, that it becomes a matter of surprise and regret, that the same plan of education has not been adopted as applicable to their *Students* in *Medicine*. But I trust, gentlemen, that this will soon be the case. As additional proof of its general utility, a similar plan of education is being required in the legal profession. I can safely say, from long experience, that I know of no method which tends so much to fix ideas in the memory, and which contributes more to expand the views of both the examiner and the examined. But I would have you recollect that the advantages to be derived from this mode of instruction will be greatly proportionate to previous preparation—remember there is "no royal road to geometry," you must bestow a most scrupulous attention on method, perspicuity, and description, and you may then confidently hope to attain that grand essential for your final examination, a habit of answering with facility, clearness, and precision. Do not attempt to compass many things at first, or you will soon become disheartened, embarrassed, and disappointed; hold in mind the maxim of *non quantum sed quam bene*. Attack your studies with, not only German industry, but also with German patience.

I must not here neglect taking notice of the benefit derivable to students of the present day, from the existence of medical reading-rooms in this city—*a great desideratum*, which the Messrs. Fannin supplied at very considerable expense, relying, I am proud to say, on my judgment in undertaking so weighty an establishment. The advantages which they present to all grades of the profession I have noticed at some length, in my Introductory Lecture, pub-

lished in 1832. But, in fact, they are now so generally known, and so properly estimated, that it is unnecessary to go into details. I think it right, however, to inform you, that they kindly dispense with requiring the usual deposit of two pounds, when any of my pupils become subscribers to the Lending Library.

It may be said that there are already too many schools in Dublin. This was before urged in another quarter, as a ground for non-recognition of some of the schools established lately. I opposed this opinion, inasmuch as the evil, if such existed, should be allowed to correct itself—for in all departments of life it will be found that the unprofitable pursuit will, when it really becomes so, cease to be followed. Let there be a clear stage, fair play, and no favour. The student should be allowed the privilege of selecting his teachers, according as his judgment, inclination, and opportunities may indicate. The exclusive right of giving professional instruction (as with University Professors) should not be vested in any particular class of teachers—where such exists, monopoly is engendered, which proves to be the obnoxious grave of salutary competition—so long as examiners are teachers, so long will students be naturally led to select those teachers who are one day to become their examiners. I am happy at finding that the Edinburgh College of Surgeons has afforded a good example in this respect: for, by a recent regulation, a teacher is rendered ineligible for the office of examiner. Government lately instituted an Inquiry, by a Parliamentary Committee, of which Mr. Warburton was appointed Chairman, relative to the medical profession. I had a communication with this gentleman respecting the obstetric branch of it. From this it would appear, that the hydra-headed monster, monopoly, will no longer be borne, and that University Professors will be brought down to the level of ordinary teachers.

The following, gentlemen, is the communication which I allude to, and subjoined also, is the reply :—

"32, Harcourt-street, 2nd April, 1834.

"Sir—As I am aware you are desirous of obtaining information respecting all departments of Medical Science, I trust I shall be excused for the liberty I take in addressing you on the present occasion; more especially, as the subject matter of this letter is one of public moment, and one that involves the interests of several of the Medical profession.

"The observations I shall make on this subject, I beg leave to refer to the following heads, viz.:—

"1. Is the present system of instruction adequate?

"2. Are the tests of qualification to practice in this department, sufficiently strict and unexceptionable?

"3. Is there any just ground of complaint as regards the non-admission of certificates from certain teachers?

"I trust I need not encumber the subject, by dilating on the necessity which exists that all Practitioners should possess an adequate knowledge of this subject—my views are briefly contained in an introductory lecture herewith sent.

"With reference to the first head, I would beg to submit, that mere lectures on Midwifery, without actual attendance on women during confinement, must be esteemed as quite inadequate instruction, inasmuch as this is *theory without practice*. It will be found, on reference to the regulations of the several Universities and Colleges of Surgeons, &c., that such is the *only* qualification required, while the practice of Medicine and Surgery are never supposed to be learned but by *hospital attendance and clinical instruction* *.

"As regards the second head, it is plain that the Surgeon or Physician who *never* attended a female during confinement, must, from the *mere* certificate of attendance upon lectures on Midwifery ONLY, be utterly unfit to undertake the duties of this branch of his profession. I am not aware of any legislative enactment which prohibits him from engaging, thus unqualified, in such a *responsible task*.

"Again, the mere Apothecary or his apprentice attends a Lying-in-Hospital or Obstetric Dispensary, and a course of lectures on Midwifery, submits, after six months' attendance, to an examination in midwifery, given by the *Medical Officers of the Institution he has attended*, and finally obtains a certificate of such attendance, &c. *upon which he becomes a Practitioner in Midwifery*. It is obvious, that this individual has had practical opportunities of instruction; but then he wants the necessary medical and surgical knowledge, for surely the treatment of Lying-in-women and Diseases of Females previously to, as well as after confinement, requires no small share of information in those branches of professional education.

"I think from the foregoing considerations it is obvious that the Surgeon and Physician should superadd *practical* instruction in Midwifery to their other professional acquirements.

"Respecting the third head, the Univer-

* It affords me no small share of gratification that the justness of my views, on this subject, receives confirmation, in the having been coincided with by the London College of Surgeons, who, by a late regulation, require candidates for the Diploma to produce certificates of actual attendance on lying-in women during confinement.

G. T. H.

sities of Edinburgh and Dublin, require certificates of attendance upon lectures on Midwifery; and, although the University Obstetric Professor of *Trinity College, Dublin*, possesses no means (by Hospital or Dispensary attendance) of giving *practical instruction* in Midwifery, yet, certificates of attendance upon his lectures are those ONLY received, while mine, on the same subject (illustrated by reference to the cases in my Hospital and Dispensary, which the pupils actually attend) are *not recognised*, though they are received by the University of Glasgow, and by the several Colleges of Surgeons, &c. &c. All the lecturers on Midwifery, even those attached to the other Hospitals and Institutions in this City, labour under a like disqualification. I trust the foregoing facts will plead, as sufficient excuse, for the trouble I have given by thus trespassing so long on your valuable time.

"I am. &c.

"G. T. HAYDEN."

The following is the polite reply which I had the honour of receiving from Mr. Warburton:—

"Sir—I have the honour to acknowledge the receipt of your letter of the 2nd, and of your introductory lecture. Certainly, the non-recognition of such a practical course on midwifery as you, from your statement, have the means of giving, appears to me a monstrous abuse of authority.

"I have the honour to be, Sir,

"Your faithful servant,

"HENRY WARBURTON.

"April 10th, 1834.

"G. T. Hayden, Esq., 32, Harcourt-street, Dublin."

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

BY DR. RYAN.

LECTURE XIX.

Reproduction of Organized Beings.

THE moment of sexual union is preceded by caresses among apes, pigeons, doves, &c.; and some animals, as bats, apes, porcupines, whales, &c., copulate abdomen to abdomen, whilst others perform the function like quadrupeds. Dogs, wolves, and foxes remain in close union, as the glans swells considerably, and is compressed by the contraction of the vagina, so that the male organ is arrested during the secretion and ejaculation of the semen; and this adaptation is necessary in these animals, because they are deprived of seminal receptacles, and their seed cannot be injected at once into the uterus, but drop by drop. If they are separated at the moment of this slow ejaculation, the female will not be impregnated. The moment of ejaculation in mammiferous animals is accompanied by universal excitement of the whole body, a kind of slight convulsion, which terminates in a comatose or exstatic state. Coition has been compared to a fit of epilepsy, to an electrical shock; it entirely engages the mind and body; we neither hear nor see; the soul is absorbed in love, and some persons have lost their lives in this crisis. It is for this reason that sexual intercourse has proved mortal after severe wounds, hæmorrhages, &c.; and when too often repeated, injures the whole economy. It is, therefore, wise to think before we engender, as we are about to impart life and to shorten our own existence. If the whole mind is not absorbed in the act of sexual union, the products are feeble and delicate, as we usually observe in the infants of men who make great mental or corporeal exertion. The sons of celebrated men are generally inferior to their fathers. We seldom, if ever, see great men engender great men. The sons of Socrates, Hippocrates, Chrysippus, Pericles, Thucydides, and Cicero, among the ancients; of Racine, La Fontaine, Henry IV. of France, Napo-

leon, John Hunter, Cullen, and a host of others that might be cited among the moderns, did not equal their fathers in talent. Most of the men, on the contrary, who became illustrious by character, genius, or valour, were the fruit of ardent and vigorous love, and the sons of parents who were only remarkable for physical strength. Many celebrated men were illegitimate, and were the sons of early and ardent love—fortes creantur fortibus—though there are exceptions when the strong are enfeebled or aged. Aristotle inquired why delicate offspring, deformities, and monstrosities were more common in the human species than in other animals; and he believed the cause to be, that our species generally perform the act of generation negligently, and have their minds filled with other matters at the time; while beasts perform the function more vigorously, and give themselves entirely to it. It is, perhaps, for this reason that rustics, or those residing in the country, who are generally robust and vigorous, beget the finest and strongest infants; because they follow nature's dictates more closely than the great people of the age, or the enfeebled citizens, who are depressed by passions, anxieties, and troubles, and whose minds are absorbed in difficult affairs, or abstract studies. Few of the human species have the mind solely intent on reproduction, but on physical pleasure, or, as Harvey observes, "Mas in generando, nec consilio nec intellectu utitur." (Exercit. 1). It is believed by some, that if the mind is fixed on a certain individual during coition, the offspring will resemble such person. Verum est quod si mulier sit juvenis cum in coitu sit memor sui vel viri, vel alterius et proprie diffundit generativum: genitus erit omnino similis et jam probatum millies et in animalibus. It was held by the ancients, that an adulterous infant may, on this ground, resemble its reputed father. It was for this reason, that some of the people of the eastern nations caused their wives to look on pictures of athletic persons during the act of reproduction. These opinions have, however, been long exploded, although some importance is still attached to family resemblances. Dr. Gregory maintains, in his Conspectus Medicinæ Theoreticæ, that children often resemble their parents, and are certainly like them, not only in features, but in form, mind, virtues, and vices. Dr. John Gregory, the father of the last-named distinguished author, makes the following remarks in his Comparative View of the State and Faculties of Man with those of the Animal World:—

"Thus, by a proper attention we can preserve and improve the breed of horses, dogs, cattle, and indeed of all other animals. Yet it is amazing that this observation was never transferred to the human species, where it would be equally applicable. It is certain, that notwithstanding our promiscuous marriages, many families are distinguished by peculiar circumstances in their character. This family character, like a family face, will often be lost in one generation and appear again in the succeeding. Without doubt, education, habit, and emulation, may contribute greatly in many cases to preserve it; but it will be generally found, that, independent of these, nature has stamped an original impression on certain minds, which education may greatly alter or efface, but seldom so entirely as to prevent its traces from being seen by an accurate observer. How a certain character or constitution of mind can be transmitted from a parent to a child, is a question of more difficulty than importance. It is, indeed, equally difficult to account for the external resemblance of features, or for bodily diseases, being transmitted from a parent to a child. But we never dream of a difficulty in explaining any appearance of nature, which is exhibited to us every day. A proper attention to this subject would enable us to improve not only the constitutions, but the characters of our posterity. Yet, we every day see very sensible people, who are anxiously attentive to preserve or improve the

breed of their horses, tainting the blood of their children, and entailing on them, not only the most loathsome diseases of the body, but madness, folly, and the most unworthy dispositions, and this too when they cannot plead being stimulated by necessity, or impelled by passion."

It has been long observed, that men of genius were the first born, because the first love is in general the most ardent; and hence the Asiatics have always maintained that their greatest legislators were born of virgins, as Zoroaster, Confucius, Mahomet, Vistnou, Zacca, &c.; and we shall also presently observe, that others were engendered not in married state, but by the force of love alone. Such was a great number of the heroes of antiquity, who, for this reason, were said to be descended from the gods, as Hercules, Esculapius, Romulus, &c.; such also were other illustrious bastards, as Homer, Gallileo, Cardan, Erasmus, &c. Even the poets entertained this opinion, and Shakspeare thus alludes to it, when he makes Edmund say—

"Why brand they us
With base? with baseness? bastardy? base? base?
Who in the lusty stealth of nature, take
More composition and fierce quality
Than doth, within a dull, stale, tired bed,
Go to the creating a whole tribe of fops,
Got 'tween sleep and wake."

William the Conqueror was named the Bastard, as he was the offspring of a left-handed marriage (pour un séjour) which allowed nobles to marry an inferior for a certain time, but to wed an equal for life. Prolonged continence produces analogous results to the preceding. The father of Montaigne returned after thirty-two years from the wars of Italy, was during that period strictly continent, and begot his celebrated son. The father of J. J. Rousseau returned from Constantinople after a considerable absence, and brought to his spouse the reward of a long fidelity.

Persons of strong and sound constitutions beget healthful infants, while those who make excessive mental or corporeal exertion have generally feeble offspring. It is upon this account that simple, stupid villagers generally beget infants of high physical and moral powers; while men of the greatest genius, who over-exert their mental faculties, often engender but idiots or pusillanimous infants. Thus, by a protracted continence or a purity of morals, the species are improved and strengthened both in mind and body. Virtuous parents concentrate all the energy of their minds in abandoning themselves to the views of nature. They engender a posterity, by whose talents the pride and glory of their parents will be maintained. Thus it is that after many progressive and virtuous generations, we see families ennoble themselves and flourish; but by a subsequent incontinence they fade and degenerate. The nobility of France, Spain, Portugal, and other nations, who intermarry among themselves, so as to maintain their caste, have long been remarkable for the degeneracy of their offspring, which often leads to adulterine bastardy. The Jews, who intermarry among themselves, are also remarkably degenerate. It is manifest that individuals resulting from a love which is languid, or old age, cold and enfeebled by anterior enjoyments, not only among men, but even among animals, are feeble and debilitated, and without any remarkable faculties. The enervated productions of the aged bear the same evidence. M. Thierry remarked, that infants contaminated with syphilis, were less fecund than those of a sound constitution. (Observ. de Physiq. et de Med. en Espagne. Paris, 1791). It is also well known that parents contaminated with ill-cured syphilis to a certain degree, often beget infants which are born dead and decomposed between the seventh and eighth month of pregnancy; and that the disease in question is

a common cause of premature parturition. Several cases of this kind have fallen under my own treatment; and in some of these there was the greatest mental distress at the want of offspring. It does not, however, follow that every man infected with syphilis in a secondary or chronic form, begets infants that perish in the last months of pregnancy, for it requires a certain degree of contamination to cause this result; but when the taint is slighter, infants are born alive, but weak and delicate, and either covered with a copper or dark-coloured eruption about the genitals and thighs, at birth, or this appears soon afterwards. I have fully described the disease in infants, in my lectures on diseases of children. Many animals are attracted by the odours they exhale at the time of rut or season of reproduction; some seek each other by their cries and songs, by which they express the violence of their amorous rage. Harvey has well described this fact: "Profecto dictu haud adeo pronum est, quomodo vel visu, vel auditu, vel olfactu, mares (etiam è longenquo) intelligant fæmellas cupidinis æstro percelli, coitumque appetetere. Aliqui, etiamsi vocem illarum duntaxat audiant, vel locum in quo minxerint, aut vestigia solum olfaciant, statim libidine acceduntur, easdemque ad coitum insectantur." (Op. cit. Exercit. vi.)

Love is more ardent among birds than among quadrupeds, on account of the warmth of their constitution and their extreme vivacity. Their coition is rapid and frequently repeated. A cock copulates with thirty hens in a short time. These birds have not a perfect penis, but a tubercle; there is no penetration, but a simple affriction. Woodcocks and other birds fall into a kind of ecstacy during the season of love. Aristotle observes, "Aves morbo laborare, et interire, nisi parient. (Genanim. l. 3). "Phasanias mas," observes Harvey, "in avario detentus, adeo flagranti libidine æstuat; ut nisi complures fæmellas, (ad minimum sex) secum habuerit, eas iterato sæpius coitu mala multet, et fecundatem impediat potius, quam promoveat. Vidi aliquando fæmellam phasaniam, à gallo simul concluso (quem nec occultando sese, neque aufugiendo, evitare poterat) adeo delassatam, dorsoque ob frequentiores ejus insultus deplumem, ut tandem miseris modis exagitata præ mærore deficeret. In eadem tamen dissecta, ovorum nerudimenta quidem inveni. Similiter fæmellæ aliquæ, in libidinem adeo proclives sunt ut mares suos morsinculis, vellicent, quasi in aurem veneris guadia insusurrarent, supersiliant aliisque artibus ad coitum invitent: in quo numero sunt columbæ et passeres." (Op. cit. Exer. vi.)

The mewing of cats, the lowing of quadrupeds, and the cackling of birds after they have deposited their eggs, are familiar examples of solicitation of the male animals to reproduction.

It is well known that repeated coition within a short time—for example, a few hours—by the same male, is invariably infecund; and that offspring is produced when moderation is observed.

Cold-blooded animals, as lizards, serpents, &c., have a slow copulation and remain several days in it. They are in a state of stupor and insensibility they neither eat nor stir during the time.

The genital organs of both sexes of animals, become congested and hot during coition and the temperature of these organs in plants is considerably augmented; a fact ascertainable by the thermometer.

The fervour of love is much greater in males when they have a great number of females; and thus polygamous are more ardent than monogamous animals; but there is reason to doubt this assertion, as the offspring is chiefly female. There is a kind of modesty in females which leads the males to search after them, and excites amorous impulse. The sexual unions of quadrupeds are generally vague, and the most vigorous males prefer the most vigorous females. Thus, we often observe small bitches in copulation with

large males, as if instinct had much more regard to the perfection of the species, than to the pleasure of the individual. Monkeys are monogamous, but they do not always confine themselves to the same female. Ruminating animals often fight for their females. It has been remarked, that sea-calves have their seraglios, which they stoutly defend against intruders.

The pairing and care of progeny of animals is beautifully described by Lord Kames in his Sketches of the History of Man; and his description is so accurate and instructive that I cannot but quote it.

"The instinct of pairing is bestowed on every species of animals to which it is necessary for rearing their young; and on no other species. All wild birds pair: but with a remarkable difference between such as place their nests on trees and such as place them on the ground. The young of the former, being hatched blind and without feathers, require the nursing care of both parents till they be able to fly. The male feeds his mate on the nest, and cheers her with a song. As soon as the young are hatched, singing yields to a more necessary occupation, that of providing food for a numerous issue, a task that requires both parents.

"Eagles and other birds of prey build on trees, or on other places difficult of access. They not only pair, but continue in pairs all the year; and the same pair procreate together year after year. This at least is the case of eagles: the male and female hunt together: and during incubation the female is fed by the male. A greater number than a single pair never are seen in company.

"Gregarious birds pair, in order probably to prevent discord, in a society confined to a narrow space. This is the case particularly of pigeons and rooks. The male and female sit on the eggs alternately, and divide the care of feeding their young. During incubation, the male raven is always at hand to defend the female against birds of prey. No sooner does a kite appear than he gets above it, and strikes it down with his bill.

"Partridges, plovers, pheasants, sea-fowl, grouse, and other kinds that place their nests on the ground, have the instinct of pairing; but differ from such as build on trees in the following particular, that after the female is impregnated, she completes her task without needing any help from the male. Retiring from him, she chooses a safe place for her nest, where she can find plenty of worms and grass-seed at hand. And her young, as soon as hatched, take foot and seek food for themselves. The only remaining duty incumbent on the dam is, to lead them to proper places for food, and to call them together when danger impends. Some males, provoked at the desertion of their mates, break the eggs if they happen to find them. If a Turkey hen die during hatching, the cock takes her place in the nest; and after the young are hatched, he tends them as a hen does. Not only so, but when the female is engaged with a new brood, the cock takes care of the former brood, leads them about for food, and acts in every respect as the female did before. Eider-ducks pair like other birds that place their nests on the ground; and the female finishes her nest with down plucked from her own breast. If the nest be destroyed for the down, which is remarkably warm and elastic, she makes another nest as before. If she be robbed a second time, she makes a third nest; but the male furnishes the down. A lady of spirit observed, that the eider-duck may give a lesson to many a married woman, who is more disposed to pluck her husband than herself. The black game never pair: in spring, the cock on an eminence crows, and claps his wings; and all the females within hearing instantly resort to him*.

"* A hen that had hatched several broods of ducklings, carried her own chickens to the r, thrust them in by force, and rested not till they were all drowned. Such is the force ustom, even against nature."

"Pairing birds, excepting those of prey, flock together in February, in order to choose their mates. They soon disperse; and are not seen afterward but in pairs.

"Pairing is unknown to quadrupeds that feed on grass. To such it would be useless; as the female gives suck to her young while she herself is feeding. If M. Buffon deserve credit, the roe-deer are an exception. They pair, though they feed on grass, and have but one litter in the year.

"Beasts of prey, such as lions, tigers, wolves, pair not. The female is left to shift for herself and for her young; which is a laborious task, and frequently so unsuccessful as to shorten life. Pairing is essential to birds of prey, because incubation leaves the female no sufficient time to search for food. Pairing is not necessary to beasts of prey, because their young can bear a long fast. Add another reason, that they would multiply so fast by pairing, as to prove troublesome neighbours to the human race.

"Among animals that pair not, males fight desperately about a female. Such a battle among horned cattle is finely described by Lucretius. Nor is it unusual, that seven or eight lions wage bloody war for a single female.

"The same reason that makes pairing necessary for gregarious birds, obtains with respect to gregarious quadrupeds; those especially who store up food for winter, and during that season live in common. Discord among such, would be attended with worse consequences than even among lions or bulls, who are not confined to one place. The beavers, with respect to pairing, resemble birds that place their nests on the ground. As soon as the young are produced, the males abandon their stock of food to their mates, and live at large; but return frequently to visit them, while they are suckling their young.

"Hedge-hogs pair, and several of the monkey kind. We are not well acquainted with the natural history of these animals; but it may be presumed that the young require the nursing care of both parents.

"Seals have a singular economy. Polygamy seems to be a law of nature among them, as a male associates with several females. The sea-turtle has no occasion to pair, as the female concludes her task with laying her eggs in the sand. The young are hatched by the sun; and immediately crawl to the sea.

"In every other branch of animal economy concerning the continuance of the species, the hand of Providence is equally conspicuous. The young of pairing birds are produced in the spring, when the weather begins to be comfortable; and their early production makes them firm and vigorous before winter, to endure the hardships of that rigorous season. Such early production is in particular favourable to eagles, and other birds of prey; for in the spring they have plenty of food, by the return of birds of passage.

"Though the time of gestation varies considerably in the different quadrupeds that feed on grass, yet the female is regularly delivered early in summer, when grass is in plenty. The mare admits the stallion in summer, carries eleven months, and is delivered the beginning of May. The cow differs little. A sheep and a goat take the male in November, carry five months and produce when grass begins to spring. These animals love short grass upon which a mare or a cow would starve. The observation holds in climates so temperate as to encourage grass in the spring, and to preserve it in verdure all the summer. I am informed that, in Italy, sheep copulate from June to July: the female goes twenty weeks, and is delivered in November or December, precisely at the time when grass there is in the greatest plenty. In April the grass is burnt up; and sheep have nothing but shrubs to browse on. This appears to me a signal instance of providential care*. The rut

"* I have it upon good authority, that ewes pasturing in a hilly country choose early some snug spot, where they may drop their young with safety. And hence the risk of removin

ting-season of the red-deer is the end of September and beginning of October: it continues for three weeks; during which time the male runs from female to female without intermission. The female brings forth in May or beginning of June: and the female of the fallow-deer brings forth at the same time. The she-ass takes the male the beginning of summer; but she bears twelve months, which fixes her delivery to summer. Wolves and foxes copulate in December: the female carries five months, and brings forth in April, when animal food is as plentiful as at any other season; and the she-lion brings forth about the same time. Of this early birth there is one evident advantage, hinted above: the young have time to grow so firm as easily to bear the inclemencies of winter.

"Were one to guess what probably would be the time of rutting, summer would be named, especially in cold climates. And yet to quadrupeds who carry but four or five months, that economy would throw the time of delivery to an improper season, for warmth as well as for food. Wisely is it ordered, that the delivery should constantly be at the best season for both.

"Gregarious quadrupeds that store up food for winter, differ from all other quadrupeds with respect to the time of delivery. Beavers copulate about the end of autumn, and bring forth in January, when their granary is full. The same economy probably obtains among all other quadrupeds of the same kind.

"One rule takes place among all brute animals, without a single exception—that the female never is burdened with two litters at the same time. The time of gestation is so unerringly calculated by nature, that the young brood can provide for themselves before another brood comes on. Even a hare is not an exception, though many litters are produced in a year. The female carries thirty or thirty-one days; but she suckles her young only twenty days, after which they provide for themselves, and leave her free to a new litter.

"The care of animals to preserve their young from harm is a beautiful instance of Providence. When a hind hears the hounds, she puts herself in the way of being hunted, and leads them from her fawn. The lapwing is no less ingenious: if a person approach, she flies about, retiring always from her nest. A partridge is extremely artful: she hops away, hanging a wing as if broken: lingers till the person approach, and hops again*. A hen, timid by nature, is bold as a lion in defence of her young: she darts upon every creature that threatens danger. The roebuck defends its young with resolution and courage. So doth a ram: and so do many other quadrupeds."

Animals generally confine their amours to their own species—simila ex similibus, augeri necesse est—(Arist.), and do not copulate, except in the season of reproduction: and hence their unions are almost always fecund. The human species often abuse the function of generation, by attempting to engender at all times, and too frequently. In such cases, the semen is suddenly secreted, it is thin and watery; it is not allowed to accumulate for six or eight days in its receptacles, in which its thinner parts become absorbed, and is rendered prolific and properly elaborated. (Harvey, Exercit. l.) The spermatic fluid ought to remain for six or eight days in its receptacles,

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flock to a new field immediately before delivery: many lambs perish by being dropped in improper places."

"* The following incident hardly deserves to be mentioned, it is so common, but that the pen is scarce dry which the sight wrung from me. A man mowing a field for hay, passed over a partridge sitting on her eggs. Turning about to cut down a tuft that had been left, unhappily brought up the partridge on the point of his scythe. Such affection there is even for a brood not yet brought to light."

to be prolific, and the longer it is retained the more fecund will it become. "Item dicimus de coitu virtuoso et de generatione creaturæ, quod vir non debet coire, recenter neque mulier spaietio octo dierum. Sciendum est, quod quanto magis sperma utriusque fuerit servatum tanto et producturæ; et si sperma ex bonis cibis fuerit generatum tanto magis erit digestum et viscosum et virtute plenum." Infecundity is often caused by a violation of this rule in young persons, and paternity established by its observance. There are however exceptions, as conception has happened after four or six days' abstinence; and much will depend on the age, temperament, habit, pursuit, and intellectual and physical states of individuals. The ancient physiologists were right in their general rule—the longer parties abstain, the more quickly they generate: "Quod quanto plus uterque se abstinet à coitu, tanto citius generat postea coiens."

Swammerdam and Mr. Hunter concluded that the vesiculæ seminales were not seminal reservoirs, as their secretion differs in colour and smell from that of the testes; that the former is yellowish and inodorous, while the seminal fluid is whitish, possessing a peculiar odour similar to that of the orchis root, or down of the chestnut. In a man, who had but one testis, Mr. Hunter found the seminal vesicle at the opposite side filled with the same fluid as that of the other. The seminal vesicles are wanting in birds, dogs, and other animals, and the bulb of the urethra performs their office in man, according to Mr. Hunter. This conclusion is opposed to the received opinion, and all now agree, that retention of the semen for some days, or abstinence from coition, is necessary for generation. The uterus is also too often excited; it loses its retentive power; and on this account, prostitutes and those who abuse coition are generally sterile. They only engender with those for whom they entertain a peculiarly strong predilection. It is for this reason prostitutes seldom conceive, until they are reclaimed, or confine themselves to certain individuals. It is to obviate the escape of the sperm, and to contract the uterus and vagina, that agriculturists pour cold water over heifers and mares, after copulation.

The contractile power of the vagina and uterus effect this in the human subject, unless when the organs are relaxed by mucous and other discharges. In the latter cases, the male semen is often too much diluted, and rendered unprolific. Most animals after impregnation refuse to admit the male, but mares, rabbits, hares, &c., are exceptions. In many insects one copulation fecundates several eggs, which may engender nine successive generations, all of which are females, except the last, which contains males. Thus an insect may be a mother and a virgin at the same time. Jurine informs us, that the *monoculus aphis* produces fifteen generations without copulation. It is also a fact, that in the *monoculus pulex*, the young in the summer months are propagated viviparously, or born alive, and in the autumnal or cooler months oviparously; some are winged, others have no wings, or a distinction of sex.

The procreation of bees is very remarkable, according to the Hübers—father and son. They have proved that the neuters are females with imperfect genitals, and therefore non-breeders, whose organs are capable of development by a more stimulating or richer honey, with which one of them selected from the rest, is treated for this purpose, by the general consent of the hive, on the loss of a queen bee or common bearer, in order to supply her place. These have stings, while the males or drones have none, and are much larger than the non-breeders or workers, are of a darker colour, and make a greater buz in flying. They are less numerous in the hive than the workers, and serve to secure the impregnation of a few young queens in the course of the season, and are regularly massacred by the stings of the workers in the beginning of autumn. The queen is impregnated in the air by a male, return-

to the hive, and often bears home with her the full proofs of a connexion, in the *ipsa verenda* of the drone; and he thus being deprived of his virility by the violence of his embrace, dies almost immediately afterwards. This single impregnation will fecundate all the eggs which the queen will lay for two or more years. She begins to lay forty-six hours after impregnation, and her eggs amount to fifty daily, or about three thousand in two months. She lays but the eggs of workers during the first eleven months, and afterwards those of drones alone.

Animals and plants which procreate from divisions, prolongations, or sprouts, have no need of fecundation.

There are great differences relative to generation in the various species of animals and plants. Most are fecund; but some are impotent, or on account of malformation, or diseases of the organs, which prevent coition. Animals and plants follow the laws of Nature, and are generally fruitful. The numerous causes of infecundity in the human species will be described hereafter. Harvey observed that there may be imperviousness of the orifice of the womb in all animals, as well as woman, and he relates cases in which he had to dilate it, to allow the escape of the menses, lochia, and other fluids. He sometimes threw injections into the organ, and also when the cavity of the uterus was ulcerated. (Exer. cit. lxv.) Such diseases are of common occurrence, as I can testify from my own experience.

OBSERVATIONS ON SARSAPARILLA AND LIME WATER.

By John Hancock, M.D.

I have lately made some further experiments with reference to the active principles of sarsaparilla; and an infusion made with a specimen of very strong, sensible properties, I found was thrown down by the hydriodate of potass, in considerable quantity, of a gray precipitate. It appears to be not the mere mucilaginous or amylaceous portion, as I at first imagined, but its alkaloid—the real or assumed active principle. The same I found to be the case with lime water; which, although itself a useful alterative, I must say, with all deference for the superior science of Dr. O'Beirne and myself, I cannot recognise as a proper menstruum for sarsaparilla. Allow me also to observe, I have long since found the physiological effects or medicinal powers of simple lime water to be slowly developed, just as remarked by Dr. O'B. of sarsa prepared with lime water; and the same convinces me of his attention and accuracy in recording the clinical action of remedies. He states that "beneficial effects are seldom observed sooner than the third week after the use." This I know to be true, in respect of lime water, but the action of sarsa, when combined, is very promptly observable; for the most part within the first week, and usually giving relief to the patient contemporaneously with its apparent operation; which is, in general, first noticed on the renal and cutaneous secretions. The best effects, too, are ever found to attend, when, by proper clothing and regimen, its action is directed upon the dermoid system.

Nevertheless, I am by no means inclined to deny that lime water, or plain water, will extract much or most of the active properties of sarsaparilla. For I am far from thinking, with eminent continental chemists, that the whole of its active principles reside in the smilacine, paraline, or alkaloid element; I place no more confidence in this, than on the assertion that quinine contains all the active matter of the bark*.

There can be no doubt that in a great variety of chronical disorders, the use of lime water would prove a very excellent auxiliary to that of sarsa. I should prefer, however, exhibiting them separately, in alternate doses, or on alternate days or weeks. The lime water is best taken in milk; its acrimony is otherwise almost intolerable. In obstinate cases, I would join the use of iodine, or minute doses of mercury.

Of the real medicinal sarsa, one ounce per diem is thought to be a large quantity amongst the Spaniards: half an ounce daily

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* I see that in recent works, our neighbours do not speak of this in so unqualified a manner as they did formerly, as containing all the active properties of the bark. Quinine is now *one* of the principles to which cinchona owes its virtues. This is modest, and much nearer the truth: and many reports tend to show that quinine is not now regarded as so infallible an agent as on its first introduction. On this I beg to refer to a paper I published in Professor Brande's Journal of Science, 1829, or 30.

is their usual prescription; for they consider it *muy caliente*—very heating—it certainly is a stimulant, when genuine. Dr. O'Beirne's recipe makes it a rather expensive medicine, continued for four or six weeks; and this sort, the Jamaica sarsa, is sold at the highest price, although inferior in real medical powers to that of Honduras, or to a certain kind often met with amongst the bales from Para. The species so closely resemble each other, that they are not always easily distinguishable by the eye, and the taste is the only criterion for selecting the genuine or medicinal species, which is sub-acrid and nauseous. The direction for choosing sarsa by the fracture, the powder, colour, &c., is for the most part unworthy of notice.

I am fully convinced, from repeated experiment, that a great portion of the active principle or material, whatever it be, is carried off by long boiling, forming that strong and peculiar effluvium which is sent forth in the coction of the genuine species; and there can be little doubt that this volatile matter is, in a great measure, taken up by water, either cold or hot, as we may judge from boiling down the infusion or decoction after collation, to form an extract, when we perceive the same effluvium. Beside this, a part of the extractive matter is oxydized in the boiling, and is thrown down insoluble. Of one of the active principles, however, of sarsaparilla (the alkaloid), water seems to be but an imperfect solvent; hence the Spanish preparations, as used in Oroonoko, prove far more efficient, which are formed either by fermentation, or by addition of wine or some spirit. Yet it must be allowed, that the species used there (the Rio Negro S., smilax syphilitica) is much more active than what is usually brought here under the name of sarsaparilla. But on this subject, I would beg to refer to certain papers laid before the M. B. Society.

Lime water is a very simple tonic; the lime is perhaps taken up but imperfectly, or very slowly by the lymphatics; and its ultimate effects on the system are tardily developed. Cinchona and iron are more stimulating, and take effect sooner; iodine and mercury still more so; and the greater the stimulus or acrimony, the more readily, in general, is their physiological action announced. At least, it so appears to me;—and that the discutient, or resolvent effects of such tonics and stimulants arise from their exciting the tonic or contractile power of the lymphatics and secerning vessels, and in fact of the whole vascular system, and all the fibres of the body, being thus taken up, and carried by the blood into every part of the system.

By this increase of energy are the dispersion of tumours, and preternatural growths, and various deposits, fluid or solid, taken up and removed from the body. This too, explains the modus operandi of those remedies which are vaguely termed *alteratives;* and not indeed, as some humoralists have supposed, by any direct power of altering; or, as expressed in popular language, of *sweetening and purifying the blood;* yet, indirectly depurating it, that is, by increasing the natural power of absorption and secretion, and thus removing morbid matters from the system: for I have long since abandoned the idea of exclusive solidism, as absurd, and as utterly incapable of affording a rational explication of the nature of any disease whatsoever. I consider that most, or all spontaneous diseases originate primarily, in some disordered condition of the fluids, which give rise to fevers and inflammations, and from which spring organical derangements, tumours, and morbid or preternatural growths; and which are evidently generated only by depositions from the blood, the lymph, or serous humours; and a moment's reflection must convince us, that all solids are formed from fluids, whether animal, vegetable, or mineral.

As to lesions in the solids, from external violence, &c. if not such as materially to impede the functions of life, nature, in a healthy constitution, will repair the injury. Excessive wounds and abscesses in the lungs have often been known to heal very kindly; but not so in acachexy, or hectic habit, (when *spontaneous lesions*, granulations, tubercles, &c., infest the lung), unless this habit can be corrected. An extensive wound however, may, and often does degenerate and pervert the whole mass of fluids; and this affords an instance of disease originating in the solids.

Whilst, then, effete, or offensive material are taken up by the lymphatics, they are again thrown off by the various emunctories of the body, (especially those of the skin and kidneys): and in this way, indeed, our bodies are constantly undergoing renovation. The activity of the exhalents, are, in general, contemporaneously increased with that of the lymphatics: as, by the use of stimulant tonics (diaphoretics) especially when preceded by a free bleeding, in a plethoric habit, and as we often witness in ardent fevers, and inflammations, when the cutaneous secretions had been quite impervious. And here by the way, it seems worthy of special notice, how a fever will thus very often be suddenly brought to a complete termination. Yet, there are some writers, (and mere writers they must be,) who affirm that a fever, when once formed, cannot, by any possible means be stopped, but must go through a certain course*.

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* Since writing the above, I find you have also given some very appropriat

Magendie has clearly demonstrated the influence of depletion in augmenting the power of the lymphatics (or increasing absorption), but not, I think, in respect to its effects on secretion ; of this, however, I am uncertain, not having seen the whole of his experiments. What is of great importance (as tending to open the eyes of the solidists), he has proved to ocular demonstration, that divers and even very gross fluids can be taken up and carried into the blood. The same, it is true, had long since been proved, and not only so, but that even solids, as "*stone blue*," (i. e., not in solution, but finely powdered), could also be taken up by the lacteals; which see in the old Phil. Trans., Nos. 270, and 275. This, however, is too antiquated for those who worship "the *lights* of *modern science*," and with whom the most absurd dogmas are infallible, if found amongst the oracles of Stahl, Hunter, and Cullen. The "*orthodox*" creed of these luminaries (*lucas a non lucendo*) will ever be a barrier to the clearest demonstrations, or at least for a generation or two to come.

In the pathological creed of Hunter and Cullen, everything is referred to action, irritation, affection, sympathy, &c. The qualities, or adventitious condition of the fluids are not thought worth the slightest regard, although they constitute by far the greater portion of our bodies.

The beneficial effects of bleeding depend, not as some suppose, on diminishing the strength, but on removing obstructions or superabundant fluids, which impede the natural functions; thus augmenting the energy, or at least giving freedom to all the absorbents and the exhalent vessels; and hence, persons in a plethoric or inflammatory state often feel an increase of strength from bleeding; by which the conservative powers, or renovative efforts of the animal machine are, through an infinity of tubes, pumps, and strainers, again carried on with wonted motion, and by which local congestions or inflammations, deposits of blood and serum, forming tumours, &c., are sucked up by the lymphatics, given over to the blood, and from thence pass off from the body by the exhalents; thus, whilst unobstructed, depurating the vital current by a constant interchange of the fluids of supply and of waste, and continually acting on and regulating the sensitive faculty, or that of the brain and nervous system.

You will excuse these very simple and plain remarks; I think we ought to advert often to subjects of so great moment, and not allow indolence, or a respect for great names or fashionable etiquette, to stand in opposition to reason and common sense, or to prevent our asserting the truth—and in

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hts bearing on the subject here touched upon.

language that is plain, undisguised, and intelligible to all; avoiding the use of unmeaning terms—such as affections, irritation, &c., to stand as representatives of disease—when they only serve as a cloak for ignorance, or to preclude any recognizance of the "antiquated, unorthodox, and exploded humoral doctrines." Nor should we suffer ourselves to be led too far by those of the membrane and tissue school, or by the intestino-chylo-poietic organ pathologists.

Since taking off the pressure of fluids, by bleeding, so much augments the energy of the lymphatics, as proved by Magendie (and as it likewise facilitates all the secretions), there can be little doubt that the same important end will be obtained by the diminution of atmospheric pressure; i. e., that the absorbents will be excited as well as the cutaneous transpiration—which has been so admirably set forth by Sir James Murray, and which I have just had the gratification to peruse in the Medical and Surgical Journal of last week (May 28th); and I think that it is not too much to hope, that by the accession of such a remedial method, we may ere long be enabled to effect, with ease and safety, the resolution of internal tumours, and even to disperse the pulmonary tubercle. In making this remark, I am aware that external pressure will remove simple tumours from the surface of the body, and that this effect is referred by pathologists to its increasing absorption; but I consider it to act merely by the ordinary effects of compression, and precluding the flow of blood to the part; and, therefore, that a passive derivation to the surface ought greatly to facilitate the resolution or dispersion of external tumours. I should like to know if the learned author has ever given his new method a trial in dropsy, for it would seem to be eminently adapted for leading off all serosities or preternatural collections of watery fluids by the dermoid emunctories; as well as for removing the impediments to lymphatic absorption throughout the system, in the manner that bleeding does; and, as the ingenious physician observes, without the expense of the vital fluid, which can often be ill spared. But the remedial purposes to which this new power may be found applicable are, perhaps, very multifarious.

I have often thought the mechanical powers are not sufficiently called into use, in aid of our remedial measures. When we consider the spongy and compressible structure of the body, composed of hydraulic tubes of divers dimensions, we perceive what a vast influence may be exerted by the application of atmospheric pressure, and especially by the expansive effects produced by its rarefaction or partial removal, and the vast influence which may thus be induced on the grand conservative functions of life—absorption and secretion; but the import-

ance of these functions have hitherto, perhaps, been too little regarded.

Dr. Murray's paper is one of the highest value, not only in reference to his discovery, but on account of the just views he has introduced, in which he evinces an intelligence of a different order to that which is inculcated by the current rotine, and *orthodox* pathology.

The foregoing remarks were intended for another journal, but having noticed, and indeed profited, by several correspondent sentiments expressed by yourself, I preferred, on reflection, to offer them to one who is not only well able to judge of the matter in point, but who has proved himself to be unshackled by medical dogmas, and unawed by high authorities.*

J. HANCOCK.

May 29th, 1836.

DUBLIN COLLEGE OF PHYSICIANS.

AT the last meeting of the Dublin College of Physicians, the following eulogium was pronounced on the late lamented Dr. Cheyne. There never was a physician more deservedly respected by his brethren, or more sincerely regretted. We have much gratification in placing the following account of him before our readers:—

On Wednesday the 18th instant, there was a numerous meeting, being the last of the present session. We perceived amongst those present the Archbishop of Dublin, and a number of the scientific characters of this city. After communications were read from Dr. Gason, of Enniskerry, Dr. Montgomery, Dr. Law, and Sir James Murray, the President, Dr. Osborne, delivered the following address in conclusion:—

Since the commencement of the present session, we have to record the death of one of our number, who was too remarkable, both as a physician, and as a member of society, to be passed over in silence. I allude to Dr. JOHN CHEYNE, Fellow of this College, and Physician General to his Majesty's Forces in Ireland. In attempting to sketch the leading traits of character and professional merits of our late distinguished member, I altogether disclaim the imputation of making use of the present opportunity to deliver an eulogy on his memory. His modesty always forbade any approach to flattery in his presence, and now that he is gone, I feel that the most suitable record which can be made, is that which consists of a plain and unadorned statement of his writings, and of the principal events which marked his career.

Dr. Cheyne was a native of Scotland, a country which has contributed more than her proportion of eminent physicians. At an early period of life he entered into the medical department of the army, and served in that capacity during the memorable rebellion of 1798. Shortly afterwards he settled as a physician in Leith, and in 1801 we find him making his first appearance as an author, in the publication of his Essays on Diseases of Children. This was intended to be the commencement of a series of publications on that subject. The disease which was treated on in this essay was croup; which, although prevalent in these countries, and occurring frequently in an epidemic form, was almost unnoticed by British authors. Indeed, with the exception of Dr. Home's treatise, there had been no adequate description of it up to the time of Dr. Cheyne's publication. The work is illustrated by coloured plates, representing the appearance of effused lymph in the disease, which are from drawings executed by Mr., now Sir Charles Bell, between whom and the author, friendship subsisted which was only terminated by death.

Doctor Cheyne's next work was on apoplexy and lethargy, and appeared in 1812. It consisted principally in recitals of cases and dissections which came under his own observation. It may be considered as one of the contributions to the present state of our knowledge of these diseases. The true nature of hydrocephalus, which was first

* A late writer, and one of our "highest authorities," says, that the doctrine of the ancients, regarding derivation and revulsion is now *wholly exploded!* The sagacious author has not intimated when this signal explosion occurred, but we may presume it marked the advent of the present millennium of medical science, which has shewn us that Hippocrates, Baglivi, Sydenham, Meade, and all the sages of antiquity, had got their heads turned the wrong way; and that all others, until the scalpel had developed the nature of diseases, and till the debût of the Edinburgh oracles, were fools, in supposing that the great mass of humours, of which our bodies are mainly composed, (being six or eight times that of the solids) could, for a moment, be disordered or in any manner capable of originating disease in the remaining small portion forming the bones and fibres. It must prove, however, a source of the utmost gratification to benevolent minds and all lovers of truth, to observe that the able professors of the Dublin University, the most enlightened school of medicine in existence, are emancipating themselves from the thraldom of a blighting incubus, which has overspread the medical horizon of all Christendom, during the last and present age. In proof of this, I could refer to the writings of Dr. Stoker, (see last number of this Journal) and most of the eminent professors of that school, although, from fashion and prejudice, many still seek the more vaunted honours of Edinburgh.

developed by Dr. Quin, of this city, was illustrated, and the most appropriate mode of treatment laid down both in this and in a subsequent professed treatise on that subject. To the labours of Dr C., and of others about the same time, we owe our knowledge of the insidious steps by which the disease advances, and of the necessity for early and active interference on the part of the physician, before that disorganization takes place which leads to the fatal result. It does not appear that the softening of the central parts of the brain, which may be considered as the essential character of the peculiar disease termed hydrocephalus, was at this time observed, and it is interesting and instructive to trace how slowly truth progresses in the medical science, and how, in the present instance, before the eyes of the most careful and inquiring investigators, this important pathological change escaped their notice. The softening of the substance of the brain, did not attract the attention of pathologists, except in some instances too remarkable to be passed over, till the publication of the treatises of Lallemand and others. Dr. C. having married an Irish lady, was induced, in 1809, to settle in Dublin, and shortly afterwards became a licentiate of this college. The high reputation which he had acquired, caused him, although a stranger, to be elected a physician to the Meath Hospital, and professor of medicine to the Royal College of Surgeons. He was afterwards appointed by government to the charge of the hospitals attached to the House of Industry. In those latter institutions he applied himself to the study of the epidemic fevers of this city, in which he was assisted by a number of active and highly qualified students, who were anxious to benefit by the lessons of his experience and matured judgment. We have the result of those labours in two reports of the Hardwicke Hospital, which comprise tabular views of the treatment, average mortality, and dissections. Those reports, taken in connexion with the reports of the physicians of the Cork Street Fever Hospital, and the large work by Drs. Cheyne and Barker, which may be said to be the history of the disease, as it occurred throughout the kingdom, form a body of information of the highest interest, not only to the physician, but to the legislator and political economist. Dr. Cheyne's treatment of fever was remarkable for its simplicity. He sought to avoid the intemperance which might be reproached to others of his time, who suffered their predilections, in favour of certain remedies, to transport them beyond the boundaries of cool and dispassionate inquiry. Thus in his practice he was an eclectic; he appears not to be the advocate of bleeding or of stimulants, but as the discriminating observer who desires to ascertain the peculiar juncture which requires the use of those remedies. In these, as in all his writings, he showed an indifference to the introduction of new medicines. He seems to have held the ordinary articles of the pharmacopœia to be quite sufficient for the purposes of the physician, and to have made it his principal business to discover the peculiar cases to which they are most suited. His report of dysentery, as it occurred in the Whitworth Hospital, and at Limerick, is peculiarly valuable, not only on account of the complete view of the pathology of the disease, founded on numerous and careful dissections, but on the just estimate of the merits of various remedies which have been at different times recommended. One fact he established, which, if it were the only one, it could not be said that he had lived in vain. It had been a generally received opinion, that in dysentery, the painful straining, which is so constant a symptom, is caused by the presence of hardened fæces or scybalæ in the colon. Even in Dr. Cullen's definition we find the words "retentis plerumque fæcibus alvinis," and in Sir John Pringle, on Diseases of the Army, purging is insisted on before the administration of opiates. The belief in the existence of those scybalæ, and of their being the cause of the irritation, led to the use of purgatives in every stage of dysentery.

In Dr. Cheyne's examinations, and in those which at his instance were instituted by others, it was found that the intestines were empty, or nearly so; and in others that although scybalæ were in the colon, yet that they had not excited inflammation in their vicinity. The conclusion from these facts was obvious. In place of the purgative treatment which had been recommended, Dr. Cheyne laid it down as the principal object to be attained, to diminish the inflammation of the lower tract of the bowels by general and topical bloodletting and opiates, while the administration of purgatives was not resorted to, till after this had been accomplished, except when peculiar exigencies of individual cases might require it. If at Rome, he who saved the life of a citizen, was honoured with the civic crown, we should be guilty of ingratitude towards our distinguished colleague, if we suffered his memory to sink into oblivion without dwelling on this and other improvements, which, although now received amongst the numbers of admitted facts, yet were not so, till established by his extensive and laborious investigation. In the first volume of the Hospital Reports, he described a curious property of James's powder, when taken for a long time, and in gradually increased doses. In 1785, a clergyman, residing near Dublin, (I believe the Rev. Singleton Harper, of Monkstown), had experienced its good effects, in a case of apopletic diathesis. Dr. Cheyne, who received this statement from a lady, made it

the subject of trial, and by a recital of cases, proved that a tendency to increased circulation in the vessels of the head was diminished, and in some instances entirely removed under its use.*

In the same valuable collection, he published a case of apoplexy, in which a portion of the heart had turned into fat—an account of the benefit derived from bleeding in hemoptysis, and incipient phthisis, and cases of fatal erethism of the stomach. When he received the appointment of Physician General to the Forces, the Military Hospital in the Park was placed under his immediate inspection; and it was his practice to visit it in the morning, before the fatiguing business of the day had commenced. Here his attention was directed to military practice, and in the 4th volume of the Hospital Reports, he published his observations on the diseases which are feigned, in order to evade military duties, and on the means of detecting them. The ingenious devices resorted to by soldiers, as described in this paper, cannot be read without much amusement. Some produced ophthalmia, by applications of quick lime or tobacco; others continued night and day in attitudes such as are maintained by the fakirs in India; some affected deafness, others blindness. Fits of epilepsy and mania were frequently imitated, while others presented all the symptoms of fever by whitening the tongue, and exciting the pulse by the use of various irritants. Our admiration of the skill and perseverance so unworthily employed in carrying on these frauds, is only exceeded by that of the superior skill exerted in detecting them. The treatment of the soldiers convicted of these practices, is in the highest degree judicious; not vindictive, but marked by his characteristic forbearance and disposition to make allowance for the faults incidental to human nature; and, where punishment is recommended, it is still tempered with mercy, and regard to hopes of future amendment. Dr. Cheyne did not reside more than about ten years in Dublin, when his practice increased so much, that few cases of consultation took place without his presence and assistance. So far from arrogating to himself airs of superiority over other practitioners, on these occasions, he uniformly showed that respect for their feelings and previously expressed opinions, as well as regard for the interest of the patient, which not only gained the confidence of the public at large, but in a remarkable degree prevented envy on the part of his less fortunate brethren. With that low opinion of himself, which so generally belongs to real merit, and perhaps remembering that saying of Lord Mansfield's—that popularity is often gained without deserving it, and lost without a fault—he has been heard to say, that he retained the situation of Physician General as a resource, in case the same capricious public, which had taken him up, should desert him, and that he contemplated the time when he might go out of fashion without any demerit on his part. His punctuality was remarkable, his attendance seldom deviating more than five minutes from the hour appointed; and although his practice was diffused through every part of the city, and extended, by letter, throughout the country, yet his avocations were so well adjusted, that he never appeared in a hurry, and in every case he gave an ample measure of time for carrying on the necessary examinations. To many his manner appeared cold and reserved, and some thought him indifferent to the distresses of his patients. Never, however, was a greater mistake committed. His was not the reserve of indifference, but of sensibility studiously kept under and concealed. His feelings were acute beyond those of the average of mankind; they may be said almost to have been morbidly so, and to have unfitted him for the situation which he was called on to fill. The physician, in every department of practice, has often to witness bereavements, leaving scenes of desolation, he cannot dispel from his recollection, even if he would. In such cases, however, he may have the consolation of knowing that all the resources of medicine were promptly and judiciously applied—and that his patient has only yielded to the fatal progress of the disease, although opposed by all the remedies which Providence has put in our power to employ. With the consulting physician, however, the case is often very different. While some consult him in order to obtain the benefit of his advice, he finds others making use of him for the unworthy purpose of ridding themselves of responsibility, or of obtaining the sanction of his name, in order to avert those attacks which their previous mismanagement of the case would be likely to provoke. Thus he is often requested to prescribe when the time for remedies has long passed, and arrangements for the patient's funeral would be the most suitable employment; and, although his feelings of sympathy towards the sufferer may be emoittered by those of indignation

* Dr. Osborne appears to have made a mistake with respect to the employment of James's powder. It was first used by Dr. Stoker, at the recommendation of the clergyman already mentioned, and the Doctor published a paper in the Dublin Medical Essays, vol. i, 1805, on the use of the remedy in hydrocephalus. He published an account of it in his Work on Fever, in 1813, and anticipated Dr. Cheyne's remarks on it in the Hospital Reports, which appeared in 1828. It is true, however, that Dr. Cheyne's recommendation of the remedy rendered it extremely popular.—Ed.

t the course which has been pursued, yet is respect for the circumstances in which ll parties are placed sets a seal upon his ips, and forbids the expression of his real entiments. The consulting physician, ragged round in a routine of useless visits, alled on to witness scenes of affliction which he is unable to alleviate—obliged to ssist in consultations got up more for show han use, in which the multitude of the ounsellors may prove a safety to themelves, but affords very little prospect of afety to the person for whom their counsel s desired, must, if possessed of even ordiary sensibility, be often oppressed with eelings of disappointment and sadness. Our lamented colleague participated deeply n these feelings. He had at times a kind f presentiment that every case to which he was called in consultation must be far dvanced towards a fatal termination. His irst entry into the apartment of the sick was, in consequence, unusually solemn, and ndeed in some cases appalling; when, however, he found the case to afford a hope of recovery, and ascertained an improvement o have taken place, then the cordial interest he took in the well doing of his patient became obvious to all. The thorough sincerity and uprightness of his character, which forbade him to express what he did not feel, produced a confidence, and inspired hopes from words which in the mouth of another would pass as mere words of course. On these occasions he readily deviated from his habitual gravity of deportment, and often descended to an unusual cheerfulness, arising from the delight he felt in the reflection, that the art had proved serviceable to his fellow creature. With respect to medical politics, he never suffered himself to be drawn in as a partisan by any branch of the profession, and uniformly expressed himself as inimical to restrictive laws, conceiving them to be useless, as the public have always taken the liberty of judging for themselves as to the merit of the persons who lay claim to their confidence. When he was elected to a seat at the Board of this College, he became a diligent attender of the meetings, and took a warm interest in its welfare. Unfortunate dissensions, however, which shortly afterwards occurred, but which have long since been consigned to oblivion, were the occasion of his discontinuing the regularity of his attendance; yet when opportunity offered, he never failed to show his regard for the solid improvement and advancement of the body at large. Having determined to retire from practice about four years ago, he received the peculiar compliment of an address expressive of their high sense of his worth, and regret at his departure, signed by his brethren of all ranks in this city. He settled in the vicinity of Newtown Pagnell, in Buckinghamshire, and resisted the most pressing importunities which were made to induce him to reside as a consulting physician in the neighbourhood of London. Yet his time was not spent inactively; he wrote, for the Cyclopædia of Practical Medicine, some of its most valuable articles, in particular those on croup, on epilepsy, and on wakefulness; and as a proof that we were not forgotten by him, several of us possess those articles in a separate form, which he sent over as tokens of his remembrance. That part of Dr. C.'s character, which his friends will now dwell on with the most satisfaction is that which belongs to him as a Christian and a benefactor to his fellow men. While engaged in the attendance on the fever hospital at the House of Industry, he had an opportunity of forming some estimate of the amount of misery and disease produced in this country by the practice of drinking spirituous liquors. In one of his reports he states, that although punch was recommended in some cases of hospital practice, yet that even the sight or smell of that beverage excited in him the utmost aversion, from his strong conviction of the deleterious influence of whiskey on the morals and health of the people.

Observations on the use of Tartar Emetic in Obstetric Practice. By EVORY KENNEDY, M.D., Master of the Lying-in Hospital, Dublin.

IF it be the duty of the hospital superintendent to avail himself of the opportunities afforded him of investigating new and interesting plans of treatment, establishing what is correct, and rejecting what is erroneous in practice, it is equally his duty to afford the results of his investigation and experience to the public. The following observations assume to be, not merely the result of one or two experiments or accidental cases, but the report of practice, adopted and tested by the experience of years in what will be admitted a sufficient field of observation. The plan here followed of selecting a medicine and treating of its efficacy in several different diseases, may appear to some to savour of empiricism. The only motive for this variation from ordinary habit is brevity—a plea that has novelty as well as simplicity to recommend it to my readers.

Tedious Labour from Rigidity of the Os Uteri and Vagina.—Some patients continue for many hours in the first stage of labour, with partial dilatation of the os uteri and external parts, in whom there may be no want of what are significantly termed grinding pains, a state more frequently met with in first pregnancies and those who marry late in life. This state is to be carefully

distinguished from false labour, which it much resembles, by the partial dilatation of the os uteri, protrusion of the membranes, and presence of glairy discharge. It may continue for some hours, rendering the labour more tedious than it would otherwise have been, the parts eventually becoming relaxed, and the labour terminating favourably; it may continue for many hours, exciting our dread as to the result of the case: or, in its more obstinate forms, it may persist so long as to wear out the mother's strength in unavailing efforts to overcome the difficulty it opposes to delivery, the mother, child, or both, perhaps, falling a sacrifice. The difficulties to encounter here, are premature, too forcible or irregular uterine action, propelling the child against the os uteri before it is sufficiently dilated or dilatable, and absolute rigidity of the parts. It should be constantly borne in mind that the first inconvenience is a very frequent cause of the second. With this view of the subject, then, the two objects to be held in view, are, mitigating too early, violent, or irregular uterine action when this is the cause of delay, and producing relaxation when rigidity is present. Of the efficacy of tartar emetic in producing the first effect, we shall presently treat, when on the subject of violent labour; for the present let us inquire into its utility in the second. In tedious labour, from rigidity of the uterus, the os is found slightly gaping, with a thickened, tense state of the lips, and usually much heat of the parts. Bleeding from the arm, and on the continent the use of the warm bath, have been had recourse to in these cases. Bleeding is attended with marked benefit when there is a full bounding pulse, in a strong plethoric habit: but, as a general practice, it is not unattended with inconveniences often of a very serious nature. It certainly procures relaxation of the os uteri, but along with this it causes depression of too permanent a nature, and may thus seriously interfere with the future progress of the labour. Tartar emetic solution has been successfully employed in producing relaxation of the os uteri in these cases, and possesses the advantage of being much less permanently debilitating. It is an agent by which the system can be with safety brought into a much greater degree of temporary depression; between which state and relaxation of the contractile tissues, a marked connexion holds, if they do not absolutely stand in the relation of cause and effect. The principal recommendation, however, to tartar emetic in these cases is, that in its use, the power of regulating the necessary degree of lowering the system, exists completely in the hands of the practitioner, as he has only to increase, or diminish, or suspend the dose, in order to produce the effect he wishes; and, when the necessary effect is produced, the withdrawal of the medicine leaves the vital energies but little impaired. The medicine has been used in the ordinary nauseating doses, as in pneumonia, five or six grains of the tartrate of antimony, dissolved in eight ounces of water, and generally twenty drops of laudanum, and a small quantity of syrup added; one, two, or more table-spoonsful of this mixture are given at intervals of from fifteen minutes to two, three, or four hours, according to the effect it produces, and the necessity that exists for bringing the patient speedily or otherwise under its influence. Sometimes it is necessary to cause free vomiting in the first instance, or the ordinary doses produce no nauseating effect; in such cases the laudanum is better withheld, but may be added afterwards if necessary. In other cases the medicine acts too violently as an emetic, or produces purging; here, increasing the quantity of the laudanum, and diminishing the dose, or allowing a longer interval to intervene between the doses, will be necessary. The accoucheur must, therefore, watch carefully the effects of the medicine during its administration, in every case in which it is employed; these observations, applying with equal force to the forms of disease in which its utility has been proved. Under some of the circumstances described, or where the antimonial in every dose and form disagreed with the patient, small and frequently repeated doses of hippo [ipecac.] have been substituted (three to five grains every hour or second hour,) and with good effect, not only in rigidity of the uterus, but in the other diseases in which tartar emetic was found efficacious. It should be mentioned, that neither tartar emetic nor venesection have been relied upon singly in some cases where it has been necessary to produce speedy dilatation of the os uteri, and where the plethoric state of the system described was present. In such, after depletion, the patient was kept for some hours under the influence of the nauseating mixture. One case, in particular, of a most threatening nature, may be mentioned, in which a strong robust woman was brought into the hospital with the arm forced into the vagina, through a tense, rigid, and slightly dilated os uteri. She was so treated, and with the best results. There is a somewhat different state of the os uteri, in which it occasionally dilates very tardily also; here the lip of the uterus is thin, and stretched over the head of the child, not affording the sensation of heat or rigidity of fibre observed in the case above described. The extract of belladonna appeared of service in a few of these cases, although its general efficacy appeared very questionable. In two cases of rigid os uteri, in which it was freely used, its application was followed by head symptoms, and depression of pulse; in one of which, even insensibility and stertor were present. It

was, however, tried in many other cases, without being followed by these unpleasant effects. The last described state of the os uteri is also occasionally benefitted by the nauseating medicine. It may depend, however, upon other causes, not under our present consideration, nor is it looked upon with the same anxiety by the accoucheur as a cause of tedious labour. In concluding this branch of our subject, let it not be inferred from what has preceded, that tartar emetic will invariably succeed in procuring dilatation of the os uteri; as it is in some cases found quite unavailing, in others inadmissible. Its efficacy, however, in a great many cases in which it has been used, fully warrant its attracting the attention of the obstetrician, and its success will depend much on a proper selection being made of the cases in which it is available.

Irritable or Violent Labour.—By no means an unfrequent cause of tedious labour is extreme irritability or violence on the part of the mother, a state most frequently met with in first children, and in the lower ranks, but not confined to these. The patient, from the very commencement of her labour, becomes violent and irritable, keeps constantly changing her posture, and, if in bed, tossing about; is generally very violent and vociferous, and, when the pain is present, becomes absolutely uncontrollable. By this means she loses the effect of her uterine efforts—she don't wait for these to bear down, but keeps up a continued and unavailing straining at expulsion in their absence, and, when they are present, she becomes violently restless, and forcibly and suddenly inspires, in place of fixing her respiratory muscles to assist in expulsive efforts which would now prove availing. This state may continue for many hours, or even for days, with more or less complete dilatation of the os uteri, and with little or no advance of the child through the pelvis; the patient at length becomes fatigued. The irritation and restlessness continue, but the uterine efforts cease, and exhaustion setting in, we are obliged to have recourse to instruments to effect the delivery. In some, the os uteri is not even fully dilated at the period when forced delivery becomes necessary, and the crotchet is then the only instrument available. In protracted violent labour, however, the child is dead in the great proportion before delivery, from the delay and violence of the parent. In these patients, where the pulse is full and the habit plethoric, venesection is often of service. The advantages that the use of tartar emetic offered in the cases already treated of, recommend it even more strongly to our notice in this. Long continued observation of its utility in cases of this kind, and the having found it procure the double effect of dilating the os uteri and soft parts, and suspending the irritability and violence which so much interfered with the natural progress of the labour, have convinced me, that by its full administration, in the cases described, we may often enable a woman to be speedily and safely delivered by her own efforts, who, without it, would have suffered from a tedious and dangerous labour, eventually, perhaps, requiring the use of instruments. To produce any good effect, it must be freely administered, the patient brought completely under its influence, and retained so whilst any tendency to irritability or violence remain; nor does it appear to suspend the labour altogether, as might be supposed; it merely mitigates or regulates the violence of the pains, and under its use the labour progresses, and the head advances into the pelvis. It should not, however, be persisted in so long as to reduce the powers of the patient too much; it should be discontinued when we have attained our object, quieting the patient. These observations will also hold as to its utility and application in the cases alluded to at the commencement of this paper, where the os uteri remains undilated from the occurrence of premature forcible or irregular uterine and abdominal efforts.

Puerperal Convulsions. — The efficacy of tartar emetic in puerperal convulsions, is quite as marked as in the preceding cases. It should, however, be understood that it has not been used to the total preclusion of bleeding, which must always prove our sheet anchor in this violent disease. It renders unnecessary the repeated bleedings we have hitherto been obliged to have recourse to, as the only effectual means of checking or preventing the repetition of the fits. After one copious bleeding, the tartar emetic is to be freely administered, as already explained, and the patient kept well under its influence. The return of the fits will by this means, in the great majority of cases, be prevented; and even in the most obstinate cases, they will be lessened in their severity and frequency. Its administration must not be desisted from until the patient is delivered, unless it produces too great prostration, even in diminished doses; neither is its use to preclude a repetition of the venesection, if symptoms should be sufficiently urgent to require this; nor the use of such other local or ordinary means of treatment as are generally had recourse to. There is a form of puerperal convulsions, in which neither this nauseating plan of treatment nor free depletion afford the benefit generally derived from them; on the contrary, the disease appears to be aggravated by these. A remarkable case of this kind occurred some months since in the hospital, in which, after the patient undergoing the ordeal of depletion, the nauseating mixture, as well as purgatives, shaving and cold applications to the head, sinapisms to the feet, blistering, and so forth, the disease was be-

coming more and more violent under their use, when she was put freely and rapidly under the influence of opium, and with almost magical effect. It would, however, be wandering from the original plan of this paper to go further into the subjects treated of, than in connexion with the use of tartar emetic in them; we shall, therefore, only add, that this medicine is admissible and eminently useful in all cases of puerperal convulsions, in which depletion proves serviceable.

Obstructed and Inflamed Mammæ.—There are two distinct states of the mammæ, occurring after delivery, which demand our notice. In both, pain and tenderness, tumefaction and hardness, are present; but one is an inflammation, the other merely an obstructed state of the organ; though the latter generally precedes and may produce the former, yet it does not necessarily so in all cases. There is no case within the range of obstetric practice so clearly under the control of the medical attendant, as the tumefied, lobulated and obstructed state of the mammæ, and none so sure to terminate unfavourably, if improperly managed. To treat it with effect, it is necessary to look to its cause. The immediate state is a vascular determination to the glandules, together with an accumulation of the lacteal secretion within the ducts and tubes, and often infiltration into the connecting cellular tissue; a state most frequently arising from a disproportionate action between the secretories and excretories. We can easily understand the frequency of the occurrence of this state of the breasts, when we consider how suddenly in most cases determination occurs to them after delivery. Let us, then, bear in mind the function the glandular part of the organ is so suddenly called upon to assume, and this, perhaps, for the first time: thus rapidly converting the freely determined blood into a nutritive fluid. Let us also call to mind the obstacles afforded to the escape and extraction of the milk in impervious, ill-formed, or diseased nipples, as well as the difficulty that opposes itself to the transmission of milk through ducts, perhaps for the first time; or after a long suspension of their action, called upon to perform the office of conduits for this new and rapidly formed secretion. These considerations tend to explain a fact observed in practice, that, with first children, or after long intervals from child-bearing, more trouble is experienced with the breasts, on delivery. When, in addition to what has preceded, we recollect the varying calibre of the conduits, their ramifications, and the accidental obstacles occurring in them, the effect either of present or previous disease, narrowing them, or perhaps rendering them altogether impervious, and amongst the most common of these, determination to certain parts of the organ, from exposure to cold, we need not wonder at trouble being so frequently caused by the breasts, after delivery, but rather feel astonished that milk abscess is so rare an occurrence. The rationale of the plan of treatment necessary to adopt will appear from what has preceded, to be, simply, checking or preventing too rapid a determination to the breasts, and relieving the ducts and tubes by facilitating the transit and escape of the milk when secreted. In effecting the first object, free saline purgation is necessary in the commencement, after which nauseating doses of tartar emetic appear to act almost as a specific in preventing inordinate determination. They also, no doubt, act in producing absorption. Tartar emetic, however, appears to effect the second object as well as the first, by its well-known power of relaxing contractile tissues, thus rendering pervious the lactiferous ducts and tubes, and accomplishing the double object specified. It is not to be understood that tartar emetic has been had recourse to in all cases where the breasts were hard and full after delivery, or even that this medicine would prove sufficient of itself to correct their obstructed state. The general plan was to administer saline aperients, rub the breasts most assiduously, stupe them, extract the milk from them, if necessary, and improve the state of the nipples, if they were diseased or indented. In the great proportion of cases, this is quite sufficient to produce softening of the breasts with free discharge of the milk. It is only where this plan don't succeed, or that symptoms are urgent, that it is deemed necessary to nauseate the patient. The result of this practice is, that in the lying-in hospital, where it is strictly enforced, a case of abscess in the breast is scarcely ever met with. It is but right to state, that in private I have not found the practice succeed so well; a circumstance ascribable simply to the impossibility of having the necessary directions strictly and effectually complied with. Ladies get fatigued with continued friction, and they do not like the nauseating medicine. Where it has been fairly tried, however, its results have been the same as in hospital. Friction, to be attended with benefit, must scarcely for an hour be desisted from, until the hardness disappears and the ducts accommodate themselves to the secretions. The usual orders to our nurses are, "to rub until the breast softens under the hand." Warm oil is used to prevent irritation to the integument from the friction. In inflammation attacking the breasts after delivery, either the glandular or tubal structure, the investing sheath, or the connecting or surrounding cellular tissue may be engaged in the inflammatory action from the commencement, or the inflammation may occur consecutive upon the state of the breasts already described. In either case, throbbing pain, generally redness of the surface, with extreme tenderness to the touch,

and hardness at one part, will be present; and these symptoms may be ushered in with a rigor, or rigors may occur in their progress. When this attack is observed, the patient is to be put immediately and freely under the influence of the tartar emetic. If purgation has not been previously attended to, a grain of tartar emetic, given in a full dose of black bottle, is a good commencement. This should be speedily followed by the nauseating mixture, and if vomiting should be twice or thrice freely produced at the outset, all the better, provided our patient can bear it. Warm stuping and fomentations must be used, and the breasts drawn by a strong healthy child, or by the exhausted bottle, and friction, if unattended with much pain, is to be persisted in. Leeches, under this plan of treatment, are seldom necessary, and their efficacy, when used, appears very questionable. By a steady perseverance in this plan, in cases even the most unpromising, the inflammation has been again and again subdued.

The child was generally applied to the breast early after delivery, at least as soon as milk could be obtained. Ulcerated and fissured nipples, which did not improve under slight stimulating lotions, as Sir A. Cooper's spirit and borax wash, were touched with a solution of nitrate of silver, ten or twenty grains to the ounce, a plan found particularly serviceable where there were sprouting granulations or excrescences projecting into the fissure, attended with excruciating pain. In obstinate cases of this kind, even touching with solid caustic was necessary, and often relieved the patient from immense protracted suffering.

Puerperal Mania.—This form, which constitutes so great a proportion of the maniacal cases met with not merely in the hospitals for insane, but in the incurable cells, when treated properly from the commencement of the attack, is a very manageable disease. Were it only for its efficacy in this distressing malady, the accoucheur should esteem tartar emetic as a most invaluable article in his prescription formulary. In a several years observance of this medicine's application, in hospital and private practice, but two or three cases have been met with which held out against it when commenced sufficiently early. The moment a patient was observed to exhibit any incoherence after delivery, attended as it usually is, with rapid pulse, and wild expression of the eye, she was placed under its nauseating influence, and retained so for twenty-four or thirty-six hours, or longer if necessary. In almost every case the disease yielded immediately; the real ills produced by the medicine taking the place of the imaginary ones previously occupying her attention. The only treatment in general, necessary, in addition to this, being the administration of aperients, and insuring sleep by free opiates, when the patient had been sufficiently subjected to the action of the tartar emetic. Diagnosis in puerperal mania requires attention. The case most likely to be taken for it, is hystæria; an affection of no very uncommon occurrence after delivery. An error in diagnosis, between these diseases, is not, however, attended with any very serious inconvenience in the treatment, as I have found from experience, the plan here recommended for puerperal mania, proves most effectual in curing hystæria; although it is, perhaps, somewhat more violent than the nature of the case demands. It may be right to mention that two fatal cases of peritonitis occurred in the Hospital, which commenced with all the symptoms of puerperal mania, and which were treated at first with tartar emetic. In one case, in the course of a few hours from the exhibition of the maniacal symptoms, in the other, after a lapse of two days from their commencement, unequivocal evidences of peritonitis set in, and in both the disease ran rapidly to its fatal termination. A peritonitic tendency was very prevalent at the time. In puerperal mania peculiar care is necessary to prevent the depressing effects of tartar emetic being produced, and with this view a larger quantity of laudanum may be added to the nauseating mixture. Patients labouring under this disease, are not able to bear the same active treatment as some of the other cases alluded to, where this medicine has proved efficacious. The pulse, in puerperal mania, whilst it is very rapid, is generally small and hard, often wiry, and here a medicine, possessing such depressing propensities, must be used with the greatest caution. A case occurred to me in consultation with Dr. Harvey, of this city some years since, strongly illustrating the necessity of caution in this respect. We had placed our patient under the influence of the medicine, with the usual directions to her friends of administering or withholding it, as might be necessary. These, however, were unattended to, and on our next visit we found her in a most alarming state. The medicine having reduced her to such a degree of debility, as to deprive her of the power of motion, her pulse was barely perceptible, and extremities and surface quite cold. Stimulants were freely administered, and friction and warm applications used to the surface and extremities, and she immediately recovered, not merely from the remedy, but from the original disease.

In concluding this paper, it may be mentioned, that it is not swelled out with cases, an abundance of which could have been furnished,) as it is neither wished to extend it unnecessarily, nor to put forward the practice recommended as that tried experimentally in a few cases, but as the ordinary plan of practice adopted, as well in private, as in an institution containing one hundred and forty beds, and where about two thousand five

hundred patients are annually admitted. As much of it was adopted by my predecessor in office, Dr. Collins, an opportunity will shortly be afforded of testing its success, and observing the proportion of recoveries in these cases, recorded in that gentleman's report of his seven years' mastership, shortly to be published; and it is confidently anticipated that in this report will be exhibited a degree of success, not merely in the cases treated of, but in midwifery practice generally, never before recorded. I ventured to publish an expression of my opinion of Dr. Collins's talented, accurate, and laborious undertaking two years since, how far correctly, the recent vote of thanks presented by the Anatomical Section of the British Association to him, for this very report, has proved.—*American Journal of Medical Science.*

Dublin, Sept. 1835.

Reviews.

An Introduction to Phrenology, in the form of Question and Answer; with an Appendix and copious Illustrative Notes. By Robert Macnish, Author of the Anatomy of Drunkenness, &c. 12mo. pp. 186.

The author of this little work has produced many instructive popular manuals, and has contributed to diffuse much medical information among the public. This production is all that it professes to be, and is well adapted for the purpose for which it is intended. It is a remarkable fact, that at this moment the majority of the Academy of Medicine of Paris is opposed to phrenology, and that its advocates are very few in number. It was moved at the last meeting that the discussion of the subject be adjourned *sine die*, until sufficient evidence be adduced in support of it. Though we believe phrenology to be in its infancy, and by no means satisfactorily established, we confess that we have been staggered at the exposition of Mr. Coombe, in his Constitution of Man—a work we most strongly recommend to our readers. M. Rochoux raised the following objections at the sitting of the Academy, May 10th, ult.

1. The impossibility of distinguishing the organs otherwise than by the eyes of faith.

2. Our ignorance of the structure of the brain; hence the temerity of determining heir number.

3. The unity of self, which destroys plurality.

4. The activity or energy of action when the volume is equal.

5. The impossibility of localising by observation undetermined faculties.

6. The unimportance of empirical facts so demonstrative as they would tell us.

7. The uniformity of mental affections in apoplectic affections.

M. Bouillard was the chief defender of phrenology, but, as we have already stated, a preponderating majority adjourned the discussion. One of the ablest opponents of the science is our talented contemporary, M. Jules Guerin, who boldly asserts that the greatest modern physiologists in all countries are not phrenologists.

The London Medical
AND
Surgical Journal.
Saturday, June 11th, 1836.

THE INJUSTICE OF THE PUBLIC TOWARDS MEDICAL MEN, RESPECTING THE PAYMENT OF FEES FOR CERTIFICATES.

That medical men as a body, and individually, are ill paid, is a truth which even the enemies of the profession have never attempted to deny. Some few men, in extensive practice, who have slipped into Court favour, have early acquired fame and fortune—how far deservedly, is another question—but in the great mass of the profession, it is notorious that the practitioner only begins to receive adequate remuneration for his talents and acquirements, just as he is fitted in body and mind to retire from active life, having made himself old before his time by over exertion, loss of rest, and great mental labour. At the call of every one, even the poorest, at all times, and in all seasons, his life is a continual labour, which endeth but with the termination of life itself. In other professions, in the church and the law, neither of them superior in usefulness, or higher in character, than the science of medicine, there

are moments of leisure and retirement, times when the mind can refresh itself by repose, for future exertion. This is not the case with regard to the practitioner of medicine; he is always to be ready for any emergence; always to have the energies of his mind in full activity. Sickness itself, barely excuses him in the eyes of the public from performing his duties; and he is frequently obliged, when more fitted himself to be a patient, to attend from his bed those who may call for him.

To say that there could be too much reward for labours such as these, would be a gross and palpable falsehood, and one, as we have said, that even the enemies of the profession have never yet ventured to assert.

It would appear natural, that if the facts above stated are correct, and no one, we believe, will presume to deny them, that those who call themselves the friends of the profession, would suggest some means by which the income of the medical practitioner would be made as nearly as possible adequate to his labours. And yet, strange to say, exclusive of all the labours which are considered to be paid for, as we have above named, there are others which the medical man performs, and which he is thought bound to do, without fee or reward; and even those who profess to serve his cause, have not yet taken steps to afford relief to this evil. No man, in any profession or calling, gives so much of his time for charitable purposes, and to the public, as the medical practitioner. He is also compelled, by writ, to give evidence at Coroners' Inquests; evidence, indeed, without which the holding of such courts would be mere farce; or without which no verdict could ever be pronounced. For the purpose of giving this evidence, he must neglect his practice, must leave the most dangerous case, and sacrifice his time and his interest, under a heavy penalty, and this, for what? Why nothing! Happily, after long continued exertions of some few friends of science, it is likely that an arrangement will be entered into, that will remove this oppression from the shoulders of the profession. Medical men are at all times expected to visit the poor, and give them their time and the benefit of their experience, without any remuneration; this we are not inclined to cavil about, but there is another portion of the gratuitous *duties* of a medical practitioner, which we consider bear peculiarly hard and unjustly upon him, inasmuch as the persons for whom such duties are performed, are for the most part perfectly able to pay for them. We allude to the signing of certificates, respecting the health of an individual. Surely this is a proceeding highly deserving of payment. When we consider the immense responsibility a medical practitioner takes upon himself by so doing, and the immense consequence it is to the patient in most instances, no one will deny that it is worthy of reward. Upon such certificates, it is often the case, that the point to be carried mainly depends. Those which are issued from Life Assurance offices, first present themselves to us; and in these a medical man is expected to answer a number of questions upon which the granting of the policy entirely rests. And these answers are to be given to the best of his knowledge and judgment, and if incorrect, subject him to an action for damages for any loss the parties may sustain in consequence. We say that the practitioner ought to be paid for signing such certificates. Is not the magistrate paid for merely signing an affidavit, of the contents of which he knows nothing? Is not a clergyman paid for certificates of marriages, births, and baptisms? Why should not the medical practitioner be paid for doing that which is of equal, if not more importance, to the person for whom it is done, and respecting which there is not only a greater degree of trouble, but a vastly greater degree of responsibility? Certainly he ought; and we trust, ere long, that such steps will be taken, as will secure

this payment. It may be urged, that in the generality of instances, medical men only sign such certificates for their own patients, individuals who employ them. Very true; but does not the lawyer generally sign certificates for his clients, and the clergyman for his parishioners, and yet, do these gentlemen act gratuitously? It requires no argument on this head, to prove that if the signing certificates in one profession is worthy of payment, the same proceeding in another is also worthy of the same reward, provided the certificate is of as much consequence to the individual; and none will deny that medical certificates are of greater importance, generally, than any other. The same reasons that shew the justice of medical men receiving fees for signing certificates of this description, hold good to a greater or less extent with respect to all others. It is useless to enter into these individually, though we may, probably, at some future time, again return to the subject.

Hospital Reports.

NORTH LONDON HOSPITAL.

Rheumatism of the Head,—Convulsions.

James Judd, aged 24, was admitted May 5th, under the care of Dr. Elliotson; stout framed sanguineous temperament; by trade, a painter. Nine mouths ago he lost the use of his hands from the effects of lead; he then went to Bath for three months to try the effects of the water; he was also salivated there. His general health improved, but not his palsy. On his return to town he became an out-patient at this Hospital. Since he suffered from the effects of lead, he has worked as a paper hanger. For four years he has had a numbness coming on suddenly in his feet, sometimes in one, sometimes in both; it extends as high as the knees, and continues about ten minutes, during which time he can kick it about without feeling. It is succeeded by a tickling sensation, which lasts about the same time. The numbness comes on, sometimes five or six times a-day, whether walking or sitting equally. If walking or standing, he is obliged to sit down or he would fall; he is then unable to raise his feet from the ground. He is a married man, has always been temperate, never had a blow on the head. Two weeks ago he got wet through, whilst travelling, and was unable to change his clothes for some hours, and has had a very bad cold ever since. On Sunday last, (May 1st,) was seized with great pain on the left side of the head, and a noise like the singing of a tea-kettle, yesterday morning when going to work, he suddenly fell down insensible, in which state he remained about four hours. He was told that he was convulsed for a short time, foamed at the mouth, and bled a little at the nose, which was followed by a great flow of thin watery fluid. Never had a fit before; is not aware that any of his family ever had. He immediately went home to bed and took some castor oil, though for a week previously he had three or four motions daily. He has now extreme tenderness of the scalp, especially on the left side of the head; great pain and tenderness also of the soft parts covering the whole length of the spine. His right hand was swollen and painful last night; the whole surface of the body is very hot; sweats very much; yet always feels chilly. No intolerence of light or noise; face flushed, eyes red, expression of countenance peculiarly heavy. No throbbing of the temples; has severe shooting pain within the head, and singing in the ears. Pulse 88, full, tongue white. His head was immediately shaved and a cold lotion applied to it; he was cupped at the back of the neck, to a pound; four grains of calomel were given every four hours, and the chalk mixture ordered, if necessary.

6th. No better; tenderness of the scalp much the same.

7th. Cupped yesterday evening on the temples to ℥xxiv; feels much better, but is light-headed; memory affected; pulse 94; scalp almost lost its tenderness; mouth sore. Has a cough; a large blister to be put on the chest.

9th. Much better; pain in the head, and noise entirely gone, also the tenderness of the scalp, but it remains down the spine, especially along the upper part of the dorsal vertebræ. No sign of pericarditis; a good deal of pain and tenderness about the shoulders and clavicles.

℞ Vin. colchici. ♏j;
Magnes. barbon. gr. x;
Mist. camphoræ, ℥j. 6tis horis.

10th. Has no pain in the head, but seems very drowsy, and answers questions very slowly. Nose was bleeding very freely. Has very considerable cough, dyspnœa, palpitation, and very great pain over the cardiac region. No morbid sound can be detected. Pulse 88. Vin. colchi. augmented to ℥ss. doses. ℞ Pil. hydrarg. gr. iv. 6tis horis.

11th. Much better; pain and tenderness of the thorax much less; palpitations en-

tirely ceased; mouth very sore; appears much less drowsy. Pupils still much dilated.

14th. The Colchicum draught, to be taken every four hours. Complains of pain in the right side of the thorax. A large blister to be applied to the affected parts.

16th. Pain entirely gone. Pupils dilated still; no affection of the head.

19th. Pain in the cardiac region, but no morbid sound.

21st. Much better. The medicine to be omitted.

31st. Discharged cured.

Dr. Elliotson remarked, of this case, that it was one evidently, of rheumatism affecting the dura mater. There was no reason why that membrane should not suffer from rheumatism, as well as the scalp, pericardium, and other fibrous tissues. The numbness, however, the patient complained of in the legs, would indicate, some previous affection of the head, or spine, which possibly might have acted as a predisposing cause.

Clinical Reports, with Reflections. By E. Geddings, M. D., Editor of the North American Archives of Medical and Surgical Science.

With some of the magnates of the profession, who find no interest in any thing pertaining to medical science unless it bear upon it either the stamp of novelty, or a character out of the usual course of things, the following cases and reflections will doubtless be deemed of little value. As there may be others, however, who regard every pathological or therapeutical fact or principle of sufficient importance to be treasured up, we do not hesitate to fall in with their sentiments, and shall consequently, regardless of the contrary opinion, make a record of the cases, with such remarks as may be suggested by them.

Case I.—*Diarrhœa—Ulceration and Enlargement of the Intestinal Follicles—Hypertrophy of the Liver and Obliteration of the Gall-bladder—Chronic Peritonitis, &c.*—Sam. Otis, aged 52, was admitted into the Baltimore Infirmary, March 24th, 1834. He represented that he had been sick several days, and had taken several cathartics. On the day previous to his admission he was seized with a profuse diarrhœa, by which his strength was very much reduced. When he entered the infirmary he was almost pulseless; his extremities were of an icy coldness, and his general aspect indicated great distress. Warm wine whey was freely administered, and a large sinapism was applied to the abdomen. 7 o'clock, P.M. Pulse scarcely perceptible; extremities still cold; has frequent calls to stool, and passes copious watery evacuations. Pulv. Doveri, gr. xv, creta prep. ʒss. Wine whey continued—sinapisms to the extremities. Enema of starch, with tinct. opii, ʒiij. Midnight, pulse fuller; extremities still cold; diarrhœa continues unabated. An enema composed of starch, with acet. Plumb. ℈j, Tinct. opii, ʒiij. Fresh sinapisms to the abdomen and inferior extremities. 1 A.M. The enema has had no effect in controlling the diarrhœa. Pulv. opii, gr. iv; Acet. Plumbi, gr. iij; Submuriat. hyd. gr. ij, every two hours.

25th. Slight amelioration; partial reaction has taken place; the diarrhœa checked after the second powder. Strong wine whey to be administered freely. 7 P.M. Not so well; pulse beginning to fail. Warm brandy toddy was given, and sinapisms applied to all the extremities and to the abdomen, without effect. He died at 12 o'clock.

Autopsy.—The mucous membrane of the intestines, especially of the ileum, was extensively ulcerated, and its follicles were very much enlarged. The liver was enlarged, and its granules presented that preponderance of yellow which is observed in *nutmeg liver. The gall-bladder was obliterated, its place being occupied by condensed cellular tissue.* The peritoneal coat of the liver was thickened; the spleen soft and enlarged, and the parietes of the intestines attenuated. The aorta, from the origin of the cœliac artery to its bifurcation, was ossified, and the latter vessel and its branches, as well as the emulgents, were in the same condition.

Remarks.—In a therapeutical relation, this case presents but little interest. The mischief had already advanced too far to be controlled by the powers of art before the individual entered the infirmary, and the remedies employed consequently exercised but little influence in staying the fatal termination. Considered in relation to the pathological phenomena observed during life, and the appearances discovered after death, the case would possess great value, were it not that the previous history is too imperfect to enable us to draw any very satisfactory inferences relative to the origin of the disease, its progress, and duration. All the circumstances, however, which were revealed by the post mortem examination, render it probable that the malady must have been of long standing. This conclusion is corroborated by the condition of the gall-bladder, liver, and peritonæum, as well as by the state of the mucous membrane of the intestines. But what was the primary seat of the disease? Was it the peritonæum? We think not, because a simple implication of that structure could not involve such extensive changes in the structure of the liver, not to say anything of the state of the mucous membrane. Did it originate in the parenchyma of the liver? We do not think it probable; for while such a conclusion would reconcile itself with the

lesions exhibited by that organ, it would be inadequate to explain either the obliteration of the gall-bladder, or the ulceration and enlargement of the follicles of the mucous membrane of the intestines. We think it highly probable, therefore, that this latter structure was the part primarily affected—probably the duodenal portion of it. It is to be regretted that this part of the alimentary canal was not examined with sufficient attention. It is a common occurrence for irritation originating in the mucous membrane of the stomach and duodenum to be transmitted to the granulated structure of the liver, and to the lining membrane of the gall-bladder, through the internal tunic of the excretory vessels, which is a mere prolongation of the mucous tissue of the alimentary canal. Taking this route, therefore, in the present case, adhesive inflammation was excited in the gall-bladder, by which it was obliterated, and primitive radicles of the hepatic duct, which form so many minute cul-de-sacs in the centre of each granule of the liver, having the capillary blood-vessels distributed upon them, being likewise involved in the same irritation, it can be easily conceived how this hypertrophy, attended with augmentation of yellow substance, was induced—that yellow substance merely consisting of the delicate blood-vessels, and their connecting cellular tissue, &c., which are spread upon the closed extremities of the radicles of the excretory duct. The liver once involved, the inflammation might easily extend to the peritonæum; and an extension of the irritation down the intestinal canal would naturally induce the ulceration and enlargement of the follicles, and the consequent diarrhœa by which the individual was destroyed.

Case II. — *Muco-peritonitis — Extensive Ulceration and Thickening of the Pyloric Orifice of the Stomach, and Ulceration of the Mucous Membrane of the Ileum.*—Philip Malay, aged 30, entered the Baltimore Infirmary, Sept. 6, 1834. He reported that he had been labouring under fever about four weeks, and had taken several doses of calomel and jalap. The symptoms, at the time of his admission, were extreme tenderness and pain on pressure over the whole abdomen. Even the slightest touch occasioned acute pain, and excited a kind of spastic action of the abdominal muscles, which were constantly contracted and rigid. The stomach was irritable, and the skin hot and dry; but the tongue was pale and moist, and did not indicate much irritation of the mucous surfaces. The pulse was weak and frequent, and the bowels constipated. Cups were applied to the abdomen, and followed by a large emollient poultice. He was directed to have a table spoonful of castor oil, and to take effervescing draught every two hours.

7th. On the morning of this day he appeared much relieved. The tenderness of the abdomen was diminished; the tongue was natural; the skin cool and covered with a free perspiration, and the pulse was stronger and not so frequent. Cups and poultice to the abdomen were repeated; an enema was administered without effect, and the effervescing draught continued.

5 o'clock, P.M. He was taken with a vomiting of feculent matter; his extremities became cold—his whole body was covered with a cold clammy perspiration; and the pulse became so weak and rapid as to be scarcely perceptible. Sinapisms were applied to the abdomen and extremities, and a turpentine enema administered, which brought away an evacuation, followed by considerable relief. 8 o'clock. Cups and a blister were applied to the abdomen, and effervescing draught was prescribed at intervals.

8th. He was found no better. The following potion was directed for him every two hours:— ℞. Tinct. cinchon. comp. Spts. æth. nit. āā ʒss. At 7 o'clock, P.M. he was worse. He was directed to have Ol. terebinth. ʒij, every two hours. He however continued to sink gradually until four o'clock, A.M., when he expired.

Autopsy.—On opening the abdomen, the colon and the principal convolutions of the small intestines were found of a high red colour, and covered with a recent viscous lymph deposite, which had particularly collected in the direction of the infractuosities of the intestinal convolutions, where it had already assumed a reddish vascular appearance, and partially agglutinated them together. The omentum was thickened, and adhered to the stomach, liver, spleen, and colon. The peritonæum was covered in several places with granulations as large as a pea, which were of a gelatinous consistence. The stomach was slightly inflamed, and its pyloric orifice was wholly occupied by a large ulcer and extensive thickening of the surrounding walls. The lower part of the ileon was intensely inflamed and extensively ulcerated, and there were two strictures in the colon.

Remarks.—In this case we have an example of inflammation originating in the mucous membrane of the alimentary canal, and extending itself to the peritonæal covering of the tube. The large ulcer, and the extensive thickening, which occupied the pyloric orifice of the stomach, were probably the result of chronic disease; but the intense inflammation, and the numerous and extensive ulcers which were found in the ileum, were intimately associated with the attack of fever, under which the patient had been labouring for four weeks. This affection of the mucous membrane of the ileum seems, indeed, to constitute the chief anatomical character of the form of fever in question. In this case, the membrane was completely riddled with ulcers,

many of them extending so deep as to nearly give rise to perforation of the intestine. This was the cause of the development of the peritonæal inflammation, which was most violent at those points corresponding to the seat of the principal inflammation of the mucous membrane. If the individual had survived a few days, complete perforation would probably have taken place, or that event would only have been prevented by the extensive adventitious adhesions formed between the convolutions of the intestines, which might have presented an artificial barrier to the escape of the contents of the intestine. The constrictions of the colon were likewise associated with inflammation of the corresponding portion of the peritonæum. The abdominal tenderness in this case, was exceedingly great, and that feature, together with the spastic contraction of the abdominal muscles, excited by pressure, clearly indicated peritonitis. Hence, although the individual was much exhausted by previous disease, as active an antiphlogistic course as was compatible with his constitutional energies, was instituted and persevered in, until the vital powers began to give way. It was only when the pulse began to fail, that the turpentine was resorted to; but it, as well as the previous remedies, were of no avail. The disease had already advanced too far. Appropriate treatment had been too long neglected, and as the case had not been met by an active antiphlogistic course at first, it could not be rendered available after the structure of the organs had become so extensively implicated.

THE NEW METROPOLITAN UNIVERSITY.

We extract the following from the *Morning Chronicle* of Tuesday.

"*The New Metropolitan University.*

"As there seems to be some doubt respecting the progress of the arrangements for the constitution of the New Metropolitan University, we have much pleasure in announcing that the charter is already in a state of forwardness, and will probably be mature for promulgation in about a fortnight. In addition to Professor Airy, the Rev. Mr. Shirwall, and Mr. Senior, who, we were enabled to state some time since, would be members of the Board of Examiners, the public will be gratified to learn that the following distinguished persons are also to be among the number. Mr. Lubbock, vice-president of the Royal Society; Mr. Sheepshanks, of Trinity College, Cambridge; Dr. Arnold, and Dr. Dalton, the eminent chemist of Manchester."

When speaking of Mr. Warburton's plans, in a late number of this Journal, we stated that the chief reason for his delay in bringing them forward arose from the fact that the New University Charter would necessarily have some influence on them, and that he could not proceed until that was framed. It appears from the paragraph above quoted, that this charter will soon be laid before the public; there will be then no further obstruction to the medical committee again pursuing their labours. We trust that the plans will be matured as soon as possible, and that the remodelling of the profession will be as perfect as its best friends wish it should be.

With regard to the names of the examiners, as mentioned above, we do not know that a better choice could have been made; we congratulate the profession on the prospect before them.

REMARKS ON QUACKERY.

(*Concluded from p.* 599.)

"*Quackery is protected by Government.* More than 100,000*l.* is annually paid to the revenue of the country for circulating the deadly nostrums of the empiric under the sanction of a government stamp; and if we add to this the duty on advertisements, the amount would be considerably increased. Individuals are therefore legally authorised to proclaim their infallible and universal medicines; they possess legal patents for defrauding the public.

"In no other country have the laws for protecting the public health been so neglected, or been associated with such striking anomalies as in England. While medical men are consulted in all cases of hygienic, epidemic, and quarantine regulations, while schools are organized, a more expensive course of education enjoined than what exists in any country of Europe, and while noble institutions are established for rendering more widely available the efforts of enlightened medical skill, another system is protected, which, if *true*, is a practical libel on all these regulations, (asserting far more than the inutility of medicine as a science,) but which, if *false*, must be rife with injustice, and fatally injurious to the health of the community.

"It has been argued by many, and the objection must not be overlooked, that quackery should not be interfered with by direct legislation; that 'si populus vult decipi, decipiatur'—that if people are fools enough to become the victims and dupes of the ignorant empiric, nobody is to be blamed but themselves. However specious the objection, (if not popular at a moment like the present,) it will be found, when examined, to be fundamentally at variance

with the principles of good government, and still more hostile to the tenets of morality and religion.

"In the first place, if quackery ought not to be legally repressed, it ought not to be legally *protected*, and no government, not utterly selfish and venal, can consistently derive support from the wages of iniquity, or foster a system whose influence must from its very nature be injurious.

"We are far from being advocates for unnecessary restriction: many other attempts at imposition may be safely permitted to work their own cure, the practical knowledge of the community at large soon detecting the knavery, and defeating its success; against attempts such as these, it would be a waste of legislation to be perpetually enacting laws. But medical imposture is not of this description. There is no instinctive guide, as in animals, given to men, for curing their diseases. Man has reason for his instructor, and it is only in the direction and to the extent in which his faculties are exercised, that his judgment is matured, and his conclusions rational. All who are medically uneducated, and still more the rude and illiterate classes of society, are incapable of discriminating between what is beneficial or injurious, of *à priori* deciding between the merits of the qualified or unqualified practitioner, are wholly ignorant of the amount or nature of the information a medical man should possess; they are thus left unprotected from imposture, and with no beacon but fatal experience to warn them of their danger. It is therefore the imperative duty of government to take care that the public health shall not suffer from public ignorance, and that it shall not be sacrificed to the machinations of the avaricious and designing, without an effort at least for their suppression and punishment. No man has a natural right to prey upon his fellow man; and one of the aims of a really liberal government, is to deprive the selfish and unprincipled of the power of pursuing their schemes of aggrandizement, at the expense of the welfare of society at large. The justice, therefore, of legislative interference for the suppression of quackery, is derived from the injurious tendency of the system, from the want of the necessary information for its detection, among those to whom it is addressed, and from its direct infringement of the rights and privileges of the properly qualified medical practitioner. The experience of ages has proved that what we call the common sense of the population, is insufficient for its abolition, and the time is now come, when quackery, if checked at all, must be checked by the strong arm of the law.

"*Quackery is supported by the Press.* Advertising is the mainspring of empirical success. It is only necessary to be in possession of sufficient funds for the purpose, to ensure the popularity of any remedy whatever. This fact is so well known, that thousands are unhesitatingly annually risked in only giving publicity to a nostrum, and the returns are in proportion to the courage of the speculator, his talent for invention, and his utter indifference to truth. Upwards of 20,000*l.* a year is sometimes expended in advertising a single medicine, and its sale would often almost immediately cease, were the practice discontinued. Quackery is thus a fruitful source of pecuniary emolument to the proprietors of newspapers, who are prompted by their interests, to nauseate their columns with the well-paid but disgusting materials with which it weaves the ensnaring web of its iniquities, and for the same reason are prevented from disclosing its fallacy and danger. Thus the very means by which the public mind should be directed and enlightened, is converted into a source of incalculable mischief.

"It is to government, not to the press, that we must look for improvement. Journalists are but men; and the temptation must be removed before the evil is effectually remedied.

"*Quackery is directly and indirectly supported by Medical Men.* Yes, medical men have unblushingly come forward in its defence; either vaunting some nostrum of their own, or lending the influence of their names to the propagation of error and imposture. They have declared themselves disciples of opinions, to which, unless their reason has deserted them, they cannot conscientiously subscribe; and of the injurious tendency of which they cannot be ignorant. They have become the mercenary hirelings of audacious adventurers, and merged in the depths of their selfish cupidity, the best interests of a profession, they were bound by their oath and every principle of justice to support; for the love of filthy lucre they have sacrificed their selfrespect, and purchased the contempt and indignation of every honourable mind.

"Medical men have *indirectly* supported quackery, from mistaken delicacy and squeamishness; they have been withheld from the open expression of their opinions, by the dread of selfish motives being attributed to their interference, or their views being regarded as the warpings of professional prejudice. When in possession of fatal proofs of the deadly effects of empiricism, they have feared the imputation of aiming at notoriety by their publication; or, not clearly seeing why *they* should voluntarily expose themselves to opposition, and perhaps loss, in apparently so hopeless a struggle, have satisfied their consciences with the impression that empiricism is too firmly implanted in the land, to be uprooted by their puny efforts; and that little

more is in their power to effect, than to follow in its wake to rebuild or repair the wrecked constitutions of its supporters. The public have thus been deprived of many practical warnings against delusion; and the real evils of empiricism too often but faintly impressed on the minds of medical men themselves. But the liability to misrepresentation attaches itself to all bold and unflinching assailants of prejudice and error; and had it been always sufficient to damp their exertions and repress their zeal, what would be our moral condition at the present moment? If our cause is rational and just, if it involves the interests of humanity, and if circumstances render us the fittest agents for its prosecution, it is a false delicacy. and a feeble morality, to be deterred from our purpose, because our success includes some increase to our individual interests. Whereever our own welfare and that of society coincide, we have a double right to come forward in our defence. Medical men are alone capable of forming an accurate judgment of the fatal effects of empiricism, and of clearly pointing out the necessity for its suppression; they are therefore morally called upon to express their opinions, to expose the nature of the evil; and, as well as every other class of society, have a right to demand that guardianship of their privileges, that protection for their immunities, with which the national voice has invested them, and which the national authorities are bound to uphold. If medical men, therefore, consider that quack medicines ought to be sold, and that quackery is harmless, let them remain passive. "If, on the other hand, they believe the use of quack medicines to be injurious to the welfare of society, to be the cause of death to hundreds of their fellow-creatures, they are called upon by every sense of duty, justice, and humanity, to take immediate measures for the suppression of this no longer supportable evil."

We have thus rapidly directed our attention to the nature of Quackery; to its immorality and injustice; and to the necessity for its suppression. Let us in conclusion inquire, how is this last object to be effected? It is very commonly asserted, and partially believed, by the unreflecting and inert, that the suppression of medical empiricism is impossible. No doubt, after all that can be done for its prevention, it will never wholly disappear; but while we relinquish the Utopian idea of its utter extinction, we do not entertain the slightest doubt of its energies being essentially crippled, and its influence materially curtailed by firm and judicious legislation.

Quackery *is* suppressed in all the other countries of Europe. The French, German, Austrian, Prussian, and Italian systems of medical jurisprudence, all enforce the necessity of a comprehensive preliminary, and medical education; they protect the rights of medical practitioners, and prevent their *slightest infringement by illegal pretenders.* In the Austrian system, (which has been found to work well, and is regarded by some of our leading medical periodicals as well worthy imitation in all its important features,) among the other functions belonging to the proto-medici, or directors, it expressly authorises them to put down all quacks and charlatan practitioners of every sort, male and female, who have not duly qualified themselves by passing the proper ordeals; and to take care that nobody sells drugs except the regular apothecary, and that the latter offers for sale no violent medicines or poisons, unless when applied for through the recipe of a regular physician or surgeon. This is the tenor of the law in continental Europe, which secures to the public the best medical aid, while it protects the rights of the qualified practitioner. This is also the privilege of the legal profession in England, which allows no one to assume the title and powers of advocate, except in his own cause. Nor is the exclusion of non-professionals considered an outrage upon the liberty of the subject, though legislators seem to hold the contrary with regard to uneducated medical practitioners. To argue that measures successfully adopted in every other European country are inapplicable to the free institutions of Great Britain, is absurd and fallacious. If a British Government is unable to adopt regulations which enlightened experience has shown to be essential for the preservation of the public health; if it is obliged, by the freedom of its constitution, to destroy with one hand those privileges and regulations which it builds up with the other, if it is forced to tolerate the schemes and practices of men, who, vulture-like, make society their prey, then, its freedom is a curse, and its existence a fiction.

But it *is* evidently in the power of legislation to check the evil we are considering; to deny the avenues of the press to the diffusion of the poisonous falsehoods of empiricism; to withhold the sanction of a stamp; to remove from the people those means of self-destruction whose danger they are unable to detect or avoid; to secure to medical practitioners their privileges and rights, while it inforces their acquirements and efficiency; and to establish those principles of justice and protection, which a free people have a right to expect, and the policy of which, they are sooner or later never unwilling to acknowledge.

Let medical men then strenuously cooperate for the suppression of quackery; let them organise a system of unanimous petitioning; let them fearlessly oppose themselves to a pestilence which has long sat like an incubus on the land; and, by doing so, they will not only soon see it wither and disappear, but at once secure the

best interests of their profession. while they protect the health of the community from the inroads of cold-hearted and ignorant pretenders.

Extraction of a Thimble from the Pterygoid Fossa. By Isaac Parrish, M.D.

J. B. came to Philadelphia, during the past summer, to obtain surgical aid for his child, a fine little girl, about four years of age.

A few days before he left home, the mother of the child, in attempting to extract a small brass thimble from her mouth, which she was about to swallow, accidentally thrust it up towards the base of the cranium. The thimble, being of small size, lodged in the zygomatic fossa, just above the outer attachment of the left lateral half arch to the bone.

The upper and rounded extremity of the thimble was closely impacted in the superior portion of the fossa, presenting towards the base of the cranium, while the open end presented obliquely towards the pharynx. It is evident, that thus situated, the passage of air through the nose and mouth would be very slightly obstructed.

Numerous attempts had been made to dislodge it by instruments introduced through the nose, all of which failed. The patient was now submitted to my father, who, being particularly occupied at the time, referred her to my care.

In connexion with my friend, Dr. Ashmead, a careful examination of the case was made. Some tumefaction was observable about the nose, which we supposed had originated from the frequent introduction of instruments.

On introducing a pair of small curved forceps, and pushing them back toward the pharynx, a grating sensation could be distinctly observed, as the instrument touched the projecting part of the thimble; but we were unable to decide what part was touched, or what was its peculiar situation.

An attempt was now made to pass the finger behind and above the soft palate, in order, if possible, to ascertain more positively the state of the case. The mouth of the little patient being forced open, pieces of soft wood were inserted between the teeth, and I succeeded, with some difficulty, in carrying my finger to the desired point. The thimble was felt, occupying the position above described. Dr. Ashmead also examined and satisfied himself upon this point.

It was now evident that any attempts to dislodge it, by instruments passed through the nostril, must be abortive; inasmuch as the body of the thimble was closely fitted into a cavity, forming, as it were, a lateral boundary to the posterior nares, and a small portion of its edge only presented to this cavity. An instrument introduced in front could only be made to glide upon this edge, which did not project sufficiently to allow of the application of force.

The difficulty of effecting our object, by instruments passed through the mouth, was very considerable, owing to the great curvature required to reach the zygomatic fossa from behind, and to the resistance of the child, from the necessary obstruction which our efforts would create to the act of respiration.

Instruments of various sizes and curvatures were introduced through the mouth, but with all our efforts we could only touch the projecting edge, without being able to secure it in such a manner as to dislodge the body.

These attempts were repeated for several successive days, until at last the little patient became so irritable that we had almost despaired of relieving her without a resort to some serious operation. As the introduction of the finger could be effected, I determined to make another effort to introduce it, with a hope that some impression might be made in this way. With the assistance of Dr. Morton (Dr. Ashmead being unwell) the index finger was carried back into the pharynx, and then curved and brought forward above the soft palate, until the thimble could be felt; the top of the finger was then pushed, by a rotatory movement, into its open end, and, by a similar movement, it was dislodged from its position. The finger was now withdrawn, with the thimble firmly fixed upon its tip, to the great joy of all parties concerned.

The patient suffered very much during the frequent operations to which she had been subjected, and some fever followed. This was subdued by rest and appropriate treatment, and in a few days she was taken home to her friends.—*American Journal of the Medical Sciences.*

BOOKS.

An Enquiry into the Pathology, Causes, and Treatment of Puerperal Fever: for which the Fothergillian gold medal was awarded by the Medical Society. By G. Moore, F.R.C.S., &c. 8vo. pp. 247. London: 1836.

On the Antidotal Treatment of Epidemic Cholera, with a Sketch of the Physiology of the Disease deduced from that of Intermittent Fever. By John Parker, M.R.C.S. 8vo. pp. 112. London: 1836.

A Sketch of the Medical Monopolies, with a Plan of Reform; addressed to the Right Hon. Lord John Russell, Secretary of State for the Home Department. By James Kenedy, M.R.C.S. London: 1836.

In the press and shortly will be published, A Concise Anatomical Description of the Arteries, with full Directions for Cutting down upon and Securing the several Arterial Trunks. Dy G. Bennett Lucas, Lecturer upon Anatomy and Physiology, one of the Surgeons to the Metropolitan Free Hospital.

THE

London Medical and Surgical Journal.

No. 21. SATURDAY, JUNE 18. Vol. I.—(1836).

A LECTURE

INTRODUCTORY TO

A COURSE ON MIDWIFERY,

AND

DISEASES OF WOMEN AND CHILDREN.

Delivered at the Theatre of the Anglesey Lying-in Hospital.

By G. T. HAYDEN, A.B.

Member of the Royal College of Surgeons, Ireland; Surgeon to the Anglesey Lying-in Hospital, &c.

(*Concluded from p.* 613.)

But, gentlemen, I find that the time usually devoted to a lecture will not permit my adverting, as I had intended, at greater length, to the subject of your professional duties; the more especially as I am pledged, in my notice of this introductory lecture, to the performance of a promise, the fulfilment of which I shall now, with your permission, turn to; and, lest the notice containing this promise may have escaped the observation of any of you, I shall, as it is brief, now read it.

"Summer and Autumnal Course, 1836. Anglesey Lying-in Hospital, Bishop-street, Dublin.—Mr. Hayden will deliver a lecture (free to the public) introductory to a course on midwifery and diseases of women and children, on Tuesday, the 10th of May, 1836, at four o'clock, P.M. Mr. H. will avail himself of this opportunity of proving to demonstration that neither the charter of Geo. II., nor *even the bye-laws* of the *great* Britain-street Lying in Hospital, authorise or direct the publication of a list of practitioners in midwifery.

"It is intended that the 'Notice to Medical Students,' and the *attempt at reply* to a 'Caution to Medical Students,' *data* furnished by the opposite party, will be the premises from which the above conclusion shall be drawn."

This promise I was induced to make in consequence of a certain "Notice," "Commentary thereupon," "Attempt at Reply," and "Rejoinder," which took place between the Master of the Lying-in Hospital, Britain-street, and the other *equally recognised* teachers of midwifery in this city; and, although the whole matter is probably fresh in the recollection of you all, I think it but right to read over the several documents, in order that you may the better appreciate the observations contained in the following pages, of which they form the ground-work. The objectionable part only of the "Notice to Medical Students," from the Britain-street Lying-in Hospital, I shall read; it is as follows:—

"*Certificates* of attendance at this hospital alone *entitles* to admission into the list of practitioners in midwifery, according to the charter of Geo. II., as published annually in the Almanacs and Directories." The next document is our

"Caution to Medical Students.—An advertisement having repeatedly appeared in *Saunders' News-Letter*, respecting the lectures of Dr. Evory Kennedy, in which it is stated that 'Certificates of attendance at this hospital (the Great Britain street Lying-in Hospital) alone *entitles* to admission into the list of practitioners in midwifery, according to the charter of Geo. II., as published annually in the Almanacs and Directories,' we, the undersigned, feel ourselves called upon to make the following statements:—

"That the charter of Geo. II. gives no power whatsoever for constructing or publishing any list of practitioners in midwifery, or for issuing a qualification or diploma to medical men under any possible circumstance.

"That the only bodies in Ireland having authority to issue any such qualification, are the Colleges of Physicians and Surgeons—and,

"That, therefore, the assertion in the Advertisement alluded to, is not only essentially untrue, but contains a most unjust insinuation against gentlemen who have received an *equally recognised* education in other Institutions than the Lying-in Hospital, Great Britain-street.

"We feel much pain at being forced to make a professional statement through a channel which must bring it under the eye

of the public; but, justice to the gentlemen who have entrusted their education to us, requires that we should not leave uncontradicted an allegation which, though *decidedly incorrect*, might at some period be injurious to them.

"H. Maunsell, M.D., Professor of Midwifery in the Royal College of Surgeons in Ireland.

"Hugh Carmichael and Robert F. Power, Coombe Lying-in Hospital.

"F. Churchill, M.D., J. H. Power, and Robert Speedy, Western Lying-in Hospital.

"T. E. Beatty, M.D., New Lying-in Hospital.

"James Custis and G. T. Hayden, Anglesey Lying-in Hospital."

Copied from *Saunders' News-Letter* of April 28th, 1836.

The following was the "Attempt at Reply" to the foregoing "Caution:"—

"In republishing the above advertisement (notice of the lectures, &c.), it is deemed right *so far* to notice a 'Caution to Medical Students,' inserted in *Saunders' News-Letter* of the 28th of April, as to state that, by a Bye-law of the Dublin Lying-in Hospital, duly made and enacted pursuant to the powers given by the Charter of George the Second, bearing date the 28th day of January, 1786, 'The Master of the Lying-in Hospital is enjoined to read one or more Courses of Lectures annually,' and that it is by the same bye-law further ordered, 'That a registry of persons attending the same, be regularly kept.' By another bye-law of the same date, it is enacted, 'That a printed certificate, signed by the Master and Assistant, be granted to each pupil who shall have served and attended a regular course in said hospital, and that a certain seal shall be affixed thereto by the Register, and an entry thereof made in the registry by the former bye-law directed to be kept.'

"In the exercise of an undoubted right, the registry, or list so kept in the hospital, has been published in the Almanacs and Directories of the last two years, and the doing so being considered of public utility, shall be persisted in. To the right of admission of names into that list, which is entitled, 'Medical Practitioners who have obtained certificates for having served and attended a regular course of instruction and practice in midwifery at the Dublin Lying-in Hospital, agreeable to the charter of George the Second,' the above advertisement clearly points, and for this, from the terms of it, the necessity of the certificate mentioned in it is quite manifest."

After this "Attempt at Reply," the gentlemen who had signed the "Caution to Medical Students," published the following "Rejoinder:"—

"Dublin Lying-in Hospital.—In an advertisement from the above hospital, published in *Saunders' News Letter*, of this date, it has been tacitly admitted that neither the charter of Geo. II., nor even the bye-laws of the hospital, give any right, much less an exclusive one, for the constructing or publishing of a List of Practitioners in Midwifery; or for issuing a qualification or diploma to medical men under any possible circumstance. We, the undersigned, shall therefore leave the matter as it now stands, it being of little consequence that an assertion should be "persisted in," after it has been publicly contradicted, and the contradiction left unshaken.

"To a publication of a List of the *Pupils* of the Britain-street Lying-in Hospital in the Almanacs and Directories we wish to make no objection; but we do object to a statement, or even to an equivocating insinuation being published, which would bear the interpretation that the Britain-street Lying-in Hospital possessed any exclusive previlege of qualifying *Practitioners in Midwifery*.

"H. Maunsell,	R. D. Speedy,
Hugh Carmichael,	T. E. Beatty,
R. F. Power,	J. Custis,
F. Churchill,	G. T. Hayden.
J. H. Power,	

"April 30, 1836."

Now, in reference to the original notice, the *Causa Belli*, we shall consider the meaning and interpretation which nine-tenths of the public, and of medical students in particular, would infer from this precious piece of English composition. Let us dissect this ridiculous paragraph, and take the knife and forceps in hand. *Imprimis*, we are informed that certificates of attendance at the "Great Britain-street Hospital" *entitles* its pupils, and such pupils alone, to admission into the list of practitioners in midwifery. *Secondly*, that this list of midwifery practitioners was published in compliance with the strict letter of the Royal Charter of George II.; and *thirdly*, that this list was published annually, not only in the Almanacs, but in the Directories *too*. We shall, with your permission, take these "Tria juncta in uno seriatim." In the *first place*, it is asserted, that unless the pupil obtain a certificate from the *Great* Britain-street Hospital, he cannot be admitted into the list of practitioners in midwifery. Mow, mark you, Dr. Evory Kennedy does not limit or restrict the term list, by saying 'my list,' or the list of the Britain-street Hospital, but as if other lists were altogether spurious, he uses it by way of pre-eminence, or rather exclusively.

On reference to the authorised lists of the colleges of physicians and surgeons, published in the Directory of this year, I find they contain fourteen members of the College of Physicians, and one hundred and thirty-five members and licentiates of the College of Surgeons in Ireland, whose names are not to be seen in this *exclusive* list, and who, therefore, if the statement of Dr. Evory

Kennedy were credited, must be esteemed by the public as mere *amateurs* in midwifery, not being *according* to the charter of Geo. II. Now, independently of such an occurrence being a gross violation of justice, it is a thing which I myself would have reason to be chagrined at, in as much, as I have the honour of reckoning amongst them, many who were formerly my esteemed pupils. And observe the talismanic influence of this list; it converts a *pupil suddenly* into a *practitioner*, in despite of the charters of the Royal Colleges of Physicians and Surgeons, the *only* bodies who enjoy the right of exercising *such a power*. If this be not an inducement to become a pupil at such an hospital, I know not what is. What, think you, will be the next honour conferred by the authority of this all-powerful charter, and the no less potent bye-laws? Knighthood, forsooth!! For the doctor will persuade us, that the practitioners which *he* makes, have a chartered right to be styled Knight errants *at least*, as being employed on nightly errands, and in the service of the ladies. It is plain, therefore, that this list is not only the *elite*, but that the practitioners therein contained, are those alone created *secundem legem*, and all else must be the very *canaille* of the profession.

Now, in the *second place*, it is stated that *the* list is published according to the charter of Geo. II., or, as he has it elsewhere, with such *nauseating disregard to syntax*, "*agreeable*" to the charter of Geo. II. In speaking of a royal charter, the *learned master* should *then*, at least, have respected the king's English. And what *says* this royal charter on the subject? Not a single word!—gives no power whatsoever, for constructing or publishing any list of practitioners in midwifery, or for issuing a qualification or diploma to medical men, under any possible circumstance.

And did we require a reason for this, we could assign one from the fact that a charter had been granted to the *College* of Physicians in 1691; a period nearly 100 years before the date of the hospital charter, by which they were empowered to punish all and every one that dared practise midwifery without their authority—giving to that body *only*, the exclusive right of making practitioners and publishing their names. It is obvious then, that if a like power had been conferred by the charter of Geo. II., it would have completely annulled the privileges of the charter previously granted to the College of Physicians—and this learned body would have just reason to complain of an invasion of their rights. Now, while alluding to the King and Queen's College of Physicians, I cannot forbear marking my sense of the arrogance which has characterised the learned master's conduct, in claiming for himself an exclusive privilege in dispensing medical honours. For, on reference to Dr. Ryan's work on Medical Jurisprudence, published this year, I find it stated "that the legislature, although frequently solicited, refused to sanction, by act of parliament, even the charter of the College of Physicians—on *this account expressly*—lest they might be thus invested with a *monopoly* in practice, or in the disposal of medical honours." Now, when the legislature, in its wisdom, refused exclusive powers to such a respectable body as the King and Queen's College of Physicians in Ireland, is it not, as I said before, *monstrous* arrogance in the *temporary superintendent* of a lying-in hospital, invested with a mere evanescent *greatness*—a fleeting grandeur!! to aim at the exercise of a monopoly so offensive to common sense.

In answer to our "Caution to Medical Students," Dr. Evory Kennedy favours us with the following information:—that according to bye-laws made in pursuance of this said charter of Geo. II., "the master is to give an annual course of lectures—that a registry of those attending should be kept—that each pupil so attending shall get a certificate—and 4thly, that there shall be an entry made in the registry of the hospital of such certificates having been granted." But what does all this come to? To this, and to this only: that there is a standing regulation at the Lying-in Hospital, Britain-street, according to which Dr. Evory Kennedy, as master of it *for the time being*, gives a course of lectures; the names of those attending as *pupils* are registered; at the expiration of the usual time, these *pupils* get certificates, *as they would* for attending lectures on *any other* of the many subjects requisite to render them eligible as candidates for degrees in medicine or surgery; and a record of the fact is kept at the hospital. But neither by charter or bye-law are they so *summarily* converted into practitioners; nor exists there the sanction of *even* a bye-law alone, giving a shew of authority to the master, to *publish in either Almanac or Directory*, a list of practitioners (*alias* pupils) in midwifery. But how does Dr. Evory Kennedy get out of this dilemma? Why—hear you—hear you, all manner of men—he does not say—I have made a sad mistake—I beg your pardon, gentlemen, you had good reason in condemning me for misstating the facts. But what does he say? Although his notice of lectures, and of the list of practitioners according to Geo. II., was given to the "four winds of heaven," he *winds* up his answer by substituting his own sovereign *masterly* will, for the royal charter, not being able to avail himself even of a bye-law to bolster up his illegal pretensions.

But this part of the subject can require no farther elucidation, for surely enough has been said to demonstrate these simple facts: That the charter of Geo. II. does not empower Dr. Kennedy to construct and publish

a list of practitioners in midwifery, much less an exclusive one; moreover, that the *inadmissible* authority of a bye-law, or regulation of the governors of the hospital has not been adduced by him as a warrant for his assumption. Now, this said Master of a lying-in hospital, in his attempt at reply to a "Caution to Medical Students," states, "that in the 'exercise of an *undoubted right*,' he will persist in publishing the list of his midwifery practitioners in the Almanacs and Directories—" Well may he be proud of such a triumph!!! He now declares that he publishes not on the authority of either charter or bye-law (because we have proved that they afford none), but in the exercise of his WILL INVINCIBLE — *Risum teneatis amici?* Do we interfere with the liberties of the subject? Do we object to the names of the *Doctor's pupils* being published in the Almanacs and Directories? Surely not—for, as a learned friend of mine justly observed, he is as much at liberty to do so as he is to publish a list of his children and domestic servants—*De Gustibus non est disputandum*—but we entreat of him, in the name of common sense, not to state that he does either the one or the other according to the charter of Geo. II., and that he, and he only, enjoys the exclusive right of creating practitioners in midwifery on the one hand, or of having children and servants on the other.

Again, we would request that such of his pupils as do not possess any degree in medicine or surgery, shall not lay the "flattering unction to their souls," that they are, by virtue of the master's high authority, to be dubbed *doctors* or *practitioners;* for as well might any of the surgical hospitals publish a list of the pupils that had attended these institutions, and designate the list as one of practitioners in surgery, although they had not a qualification from any College of Surgeons.

Thirdly, and *lastly*, it is announced that this list is published in the Almanacs and Directories! This was most astutely thought of by the learned master.

Although all the other masters, since the foundation of the hospital in December 1757, gave instruction in midwifery, and performed duties similar to those discharged by the present master—were armed with the like authority—possessed the same powers, yet *they* were content with keeping within the meaning of the charter and the bounds of common sense; it remained for Dr. Evory Kennedy, in sooth, outstripping both, to assume the *enchanter's wand*, by which with magic touch, he could at once metamorphose the pupil into the practitioner. But why was this announcement made—what the "*cui bono*" of it? was it held out as a beacon light to direct the course of the inexperienced student? "*Haud ignobile opus*," a *meritorious task truly*. Or could it have been the "*Sacra fames auri*," which actuated the *disinterested* master?

Was it with the view of making generally known the capability of the Britain-street Hospital as a school of midwifery? An attribute which we acknowledge it possesses in common with similar institutions in this city. Or was it for the purpose of conveying to the public mind the impression that it *only* was capable of effecting such an object? thus being the herald of an assumed exclusiveness.

Was it with the noble view of consulting the public weal that he advertises the publication of a list, by which he would have inferred that those only therein mentioned are authorised to practice midwifery? Or can we recognise in it a far different object, at once wily and seductive, that the youthful student may be attracted to his hospital by the alluring bait of having his name before the public? "For 'tis a pleasing thing to see one's name in print." But how comes it, gentlemen, that if the right of practising midwifery was vested only in those who enjoyed the *high honour* of a place in this *chartered* list, that we find so many members of the College of Physicians and Surgeons in Ireland practising midwifery under the sanction of their respective colleges? yet who, as their names are not to be seen in this exclusive list, emanating from an *hospital*, would have their interests materially affected if the public were deceived into the belief that those only who had the benefit of George the Second's charter were legally authorised practitioners.

I trust, gentlemen, I have proved to your satisfaction that the Master of the Britain-street Hospital has no right to state in his notice, either according to the laws of the realm or those of syntax, that "Certificates of attendance at this hospital alone *entitles* to admission into the list of practitioners in midwifery, *agreeable!!* to the charter of Geo. II., as published annually in the Almanacs and Directories.

Two most influential reasons have induced the teachers of practical midwifery in this city to disabuse the minds of the public in general, and of the junior members of the profession in particular, with reference to this *vaunting placard*, which, from its heading, "All who run may read," that they are "noticed" to avoid a path of danger, and turn to one of safety.

In the first place we were bound, in obedience to the first law of nature, "self-preservation," to prove demonstratively to the public and to the profession, that we did not allure pupils under "false pretences," that we did not receive fees for professional instruction, and then dismiss the unsuspecting pupil without having the power of conferring a recognised qualification.

And, secondly, we were imperatively called upon, in justice to the gentlemen

who had entrusted their education to us, to prove that the Master of the Britain-street Hospital did not, or could not, dispense any title or qualification to *his pupils*, which the medical officers of similar institutions in this city, or elsewhere, had not equal power to confer.

The caution to medical students, although satisfactory in the abstract, could not, from its necessary brevity, enter sufficiently into detail. On this account, gentlemen, have I trespassed at such length upon your patience.

In dismissing the subject I shall take this opportunity of stating that I disclaim all personal or invidious motives; I deal with measures, not men. In the discharge of a most irksome and painful duty, I have been compelled to notice the proceedings of the Master of the Britain-street Hospital in no measured terms of reprehension: this, to me, has been a peculiarly unpleasant task, as he and I have been intimate, both as pupils and as practitioners.

Now, gentlemen, in expressing my sentiments upon this occasion, I have been actuated throughout by the conviction that I contended not solely for my own rights, but for those of very many of my professional friends, as well teachers as pupils. And I trust it has been done with that spirit of independence, as well as moderation, which it has been amongst my first wishes uniformly to evince.

CLINICAL LECTURE

ON CASES IN THE NORTH LONDON HOSPITAL.

Delivered in June, 1836.

BY PROFESSOR ELLIOTSON.

Pericarditis—Point of Practice in Case.

The first case I have to offer to your notice to day, illustrates an important point in practice; viz., that in certain cases, which are inflammatory at first, and requiring direct and active antiphlogistic treatment, it is often the case that they afterwards require a diametrically opposite plan of treatment, although the symptoms are very much of the same character as before the antiphlogistic treatment was employed. This fact is exemplified in those cases of pericarditis, in which, after bleeding, mercury, and other like means are employed for its removal—the symptoms in a great measure remaining—iron effects a cure. These patients become quite feeble and pale under the antiphlogistic treatment; but, on giving the iron, they soon get their colour and strength again. The case I shall now read, you will perceive at once to be a well-marked one of

[*Pericarditis.*

Julia Morgan, aged 23, was admitted February 23; she is a servant of all work, her family is subject to diseases of the heart, her father and brother being much troubled with them, and obtaining relief at hospitals from time to time. About six weeks ago, she was seized with pain at the scrobiculus cordis, of a stabbing character, which soon shifted a little to the left side, and darted down the left arm, sometimes stopping at the elbow, at other times more severe, going as far as the wrist. She was attended by Mr. Bryant, who treated her antiphlogistically, and administered mercury. As soon as her gums became tender, the pain was relieved, and she partially recovered, but going out of doors too soon and walking too far, she became as bad as ever. The pain is now of the same character as that experienced on the first seizure, shooting through the back, or darting down the arm, increased by pressure between the ribs; worse after eating or drinking hot fluids; the skin over the region of the heart hotter than at other parts. There is palpitation, and the impulse of the heart is heard over a larger space than natural, the stethoscope reveals slight bellows-sound after the pulse; there could be no doubt that there was pericarditis here. She is thin and pale, but subject to transient flushes of the face.

At present she has a catarrh and slight attack of feverishness; tongue foul; bowels rather confined; pulse rather quick (96) full; skin hot and dry; urine high-coloured, scanty; menstruates regularly, though scantily; no œdema of the lower extremities; she never had rheumatism. On the 23rd, the day of her admission, she was bled to twelves ounces, and five grains of blue pill ordered three times a-day; she was put on low diet. On the 27th, she was no better, and she had violent palpitations at night; she was cupped in the left hypochondriac region to eight ounces. On the 29th, she was a little relieved, though she still had pain and palpitation at night. She says she is always more relieved by local than general bleedings. It is usually observed in pericarditis, that local bleeding is the most beneficial, but of course in severe cases, you would commence your treatment with a general bleeding. She was cupped again on the first to eight ounces, and as her mouth was not affected, the pill was ordered every four hours. On March 5th she was a little better; the gums had become slightly affected. On the 7th, she was still improving. On the 10th, the mouth was getting sorer; she was much the same in respect to the disease. On the 12th, the mouth being pretty sore, the mercury was omitted. She was much reduced by the depletion she had undergone; she was, therefore, ordered a pint of milk daily. On the 20th, she was

very pale and weak; her mouth was still sore. She had some pain in the side, but less palpitation; we put her on middle diet, and ordered her one drachm of the carbonate of iron three times a-day; there was now nothing inflammatory in her case. On the 29th, she is reported as much better, though she has occasional pain in the heart, but not severe, and occurring chiefly at night. On the 4th of April, she was much better; the bellows-sound was scarcely audible. On the 12th, she was still improving and getting a colour in her cheeks; she was placed on the house diet. On the 15th, she is reported as being pretty well all day; but has fits of palpitation at night; pulse full and regular; no bellows-sound to be distinguished. On the 19th, she was so well, that at her own request she was discharged; in fact, she was quite cured.

Now, in this case, there can be no doubt that if we had employed the carbonate of iron, and placed her on full diet at the commencement, that the symptoms would have been aggravated; and if we had continued the antiphlogistic-treatment further than we did, we should certainly have done no good. You will generally find in diseases of the heart, when there is great paleness, the employment of iron is beneficial.

The next is a case which we somewhat relieved, but which is not altogether curable; it is that of a woman, aged 53, who was formerly a patient (about eight months since) in this hospital, under the care of Mr. LISTON, by whom she was treated for

An Abscess in the Right Side,

which was produced or accelerated by a fall. It was opened, and more than a hundred ounces of pus were at once discharged, the cavity continuing to secrete abundantly afterwards. Previous, however, to this period, a tumour had existed in the right iliac region, which commenced twenty-six years since, about ten years after her marriage, and gradually increased to a very large size. After she left the hospital, the discharge of pus diminished a little, and pieces of bone of small size, hardish texture, and perforated with foramina, came away. The discharge, both of pus and bone, continues up to the present time; and she now lies in a very feeble condition. It is not common for the membranes of cysts to secrete bone, though occasionally they take on this action. In mentioning this case to Sir C. Clarke, whom I met one day after I had been at the hospital, he said he had seen five cases, in which such secretion occurred in ovarian dropsy. I imagine in this case, that the bone was formed from the inner cavity of the tumour. The tumour has now reached an enormous size, and is firm to the touch, with a distinct sense of fluctuation at the left border. From the pressure of the tumour, apparently on the neck of the bladder, considerable difficulty is experienced in micturition; it is common in cases of enlarged ovary for patients to make little water; it was so in this case. The tumour extends from the right hypochondriac region down to the pubes, which it overhangs, is irregularly hour-glass in its shape, measuring, as nearly as can be ascertained, forty inches in circumference. The stomach is in a very irritable state; there is great retching in the morning; she has no appetite, and complains of great thirst; pulse soft and full, 80 in the minute. There is looseness of the bowels, slight cough, and dyspnœa, with palpitation upon exertion; no œdema of the lower extremities; she began to menstruate at the usual period of life, and continued till about three years ago without interruption; she never bore children or conceived.

Now, to reduce the tumour, I gave her half a drachm of the solution of hydriodate of potash three times a-day, and ordered her to rub in an ointment of ℈i of iodine to ʒi of cerate twice a day; and to subdue the vomiting, one drop of the creosote was ordered before each dose of the medicine; the vomiting was stopped in two days; and though we did not increase the dose, and she took it for some time, the vomiting did not return, but her appetite much improved. We were enabled by this means to increase the dose of the hydriodate of potash to 15 grains three times a day, the creosote keeping the stomach comfortable. On the 6th of February, the report is, the sicknes has ceased; she came in on the 3rd. On the 16th of April she was discharged, very much lessened in bulk. The disease will never be entirely removed, of course; the effect of the hydriodate of potash was much more beneficial than might have been expected. Some people recommend that hydriodate of potash should be mixed with the iodine composing the ointment. I think, however, the iodine alone is much superior; the only advantage the hydriodate of potash has over it, is its being a cleaner application. The next case is one of a poor woman with

Cancer of the Womb.

A. S., aged 60, was admitted Feb. 16. Twenty months ago, she was attacked with violent sanguineous discharge from the vagina, attended with cold shivering; the discharge has continued, more or less, up to the present time, reducing her strength very considerably; she has much pain occasionally; the discharge amounts now to about a pint in the twenty-four hours; it is of a red colour, and similar to the menstrual discharge, but it sometimes comes away in clots, and is sometimes little more than stained water. Menstruation began about thirteen, and ceased about fourteen years ago; has borne five children, and never suf-

fered from derangement of the uterine organs before. The general health is good; the bowels open; tongue clean; pulse soft and full, about 80; urine scanty, but not unnatural in appearance; a little dragging pain is complained of down the chest and abdomen, and slight uneasiness in the loins; she is not aware of the exciting cause of her complaint. Mr. TAYLOR examined her per vaginam, and found scirrhus of the neck of the uterus. To stop the profuse discharge, I gave her two grains of the acetate of lead every four hours, with a teaspoonful of vinegar, and she had a little opening medicine, two colocynth pills, every night. It is very necessary to attend to the bowels in these cases, as otherwise the rectum presses upon the uterus and causes pain. After death in these cases, you occasionally find a very large collection of fæces in the rectum. On the 18th, the discharge had greatly abated; she feels much better; the bowels have been kept well opened. On the 23rd, the discharge was hardly discoloured. We began with two grains of the acetate of lead every four hours, which is twelve grains in the 24—by no means too large a dose—a very common quantity. I remember the time when I was a student, reading in the Edinburgh Pharmacopœia, that you were not to give lead at all; you may safely, however, give it to a great extent, if you attend to the bowels. In this case it had a very excellent effect on the discharge. This woman had her weakness considerably diminished; and what is not frequent in such a case, got rid of her pain also; her bowels were kept open. On the 3rd of March, her bowels became constipated, no doubt from the lead; it was, therefore, immediately omitted, the proper plan of proceeding, and purgatives given, half an ounce of the sulphate of magnesia every three hours; the best preparation in such a case, and an enema was given her. She was now purged, but complained of sickness; to relieve which, we gave one minim of the creosote every hour, which was soon effectual in stopping the vomiting; and we were able on the 8th, to resume the use of the lead; sickness returned again on the 10th; we then gave her two drops of the creosote before each dose of her pills—a very good way of proceeding; this certainly had a good effect, though she occasionally felt sick. Of course the disease will go on; this is only a temporary relief. Now, generally in these cases, it is necessary to give opium to relieve the pain; it was not so in this case, the lead having had that effect. She had that sallow cathectic look, which distinguishes persons suffering from malignant disease. The sickness was eventually entirely removed by the creosote, which was augmented to ten-minim doses.

There is one more case, gentlemen, I wish to speak of to-day; it is one of

Menorrhagia with Leuchorrhœa.

There was no structural disease in this case.

Mary Anne D., aged 20, was admitted May 10th; she is a servant of all-work; generally complains of headach and giddiness; enjoyed good health until the last three years; during which period, she has been very subject to pain in the head, particularly the forehead, sometimes attended with sickness. She has been in St. Bartholomew's Hospital, for pain in the chest, and headach; the chest was relieved, but the head was still affected. About a fortnight since, the pain in the chest returned; the pain in the head is more violent, morning and evening. Bowels regular; at times she feels faint and languid; appetite formerly very good, but has failed her the last seven months. Menstruation regular, but profuse in quantity; it was profuse before her admission into St. Bartholomew's; relieved there, and again returned three months since; countenance pale; skin cool; has had leucorrhœa for seven months past.

I know nothing so beneficial as injections of the solution of the

Nitrate of Silver in Leucorrhœa.

Internal medicines may strengthen the system which has become affected by the complaint; but unless injection is employed, you will not make much way in curing the disease. We began in this case with an injection of half a grain of the nitrate to ℥i of water; you may begin with a smaller quantity if you please. Most women have a great objection to the employment of injections, and often when they do consent to use them, they do not do so properly; they often use a very large quantity, and they do not always place themselves in a proper position for the injection to be retained long enough to do good. When you order such a remedy, you cannot be too particular in giving directions respecting the manner it should be employed; the patient should lie down, and a small quantity only be injected at a time. This girl was pale and weak, so we gave her a scruple of the tincture of the muriate of iron, three times a-day; this was afterwards increased to half a drachm. The strength of the injection was gradually increased to one grain and a half of the nitrate to the ounce of water. With this kind of injection you are almost always sure to have success, provided you take care that the injection is properly used. In some cases of menorrhagia, in which at the periods the patient is affected with pain in the loins and head, and labours under general excitement of the system, the loss of blood will be useful. Our patient left the hospital cured, on the 21st of May.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XX.

Generation of Vegetables.

The vegetable kingdom is one of the grand divisions of animated nature, without which animals would have been created in vain, as it affords food, shelter, and shade, and comforts to all terrestrial beings. Vegetables are living or organized beings; but distinguished from animals by the want of *nerves*, *muscles*, and a *digestive cavity;* and consequently they have not the power of sensibility unless contractility and irritability be so deemed; nor of motility nor true digestion. They possess no idea of their own existence, nor of that of those beings which surround them; they do not stand in need of the faculty of thought, like animals; they remain fixed in the same place during their life, in which they receive all substances necessary for their growth, conservation, and multiplication. It is easy to distinguish a vegetable from an animal; but when we place certain organized beings of the extremes of the two kingdoms before us, as sponges, corals, &c., the difference is so slight in appearance, that the most celebrated naturalists have hesitated to which division to assign them; and they have often classed them in one group or the other.

Nevertheless, all naturalists now agree, that every being which possesses a *digestive cavity*, and enjoys *voluntary motion*, is really an animal; whilst that one is to be regarded as a vegetable which possesses certain movements, without an alimentary canal; such, for example, as the *sensitive* and other analogous plants. According to this conclusion, it is easy to fix the line of demarcation between vegetables and animals: thus the coral is indubitably an animal, because it contracts itself by an act of volition, and possesses an internal reservoir; but a creeping plant is a vegetable, because it has no internal cavity, or no degree of motility.

In all other respects the conformation of vegetables is the same as that of animals, except that they are deprived of *nerves* and *muscles*. Their bodies have a cellular tissue for a base, simple in a small number, and transformed into *vessels* and *glands* of various kinds, in the great majority.

It is also to be remembered, that the fundamental elements of animals are oxygen, nitrogen, and hydrogen, and of vegetables, oxygen, carbon, and hydrogen, with some others common to both kingdoms.

Vegetables possess the following parts—1, a *root* which connects them to the soil; 2, a *stem* which projects into the air; 3, *leaves* of different sizes; 4, a *pistil* or female, and a stamen or *male* organ, of generation; 5, a *calyx* and corolla, to protect the organs of reproduction; and, 6, the *fruit*, which contains the germs of many new plants.

It follows from this arrangement of parts, that vegetables are destined to accomplish two great organic functions, *nutrition* or *self-preservation*, and *reproduction, or a perpetuation* of species.

It is manifestly foreign to these lectures, to prosecute vegetable physiology, and to describe the functions of this class of beings, such as nutrition—by roots, stems or branches, shoots, leaves or accessory organs;—absorption,

elaboration by sap, assimilation, respiration, or transpiration; but I shall merely confine myself to a very succinct account of reproduction, which peculiarly appertains to our present subject.

There are male and female organs in plants, destined for reproduction, as well as in animals. With the exception of a very small number of plants, all vegetables have on the same stalk both male and female organs of reproduction—an admirable contrivance of nature, which thus furnishes to the plant the means of regeneration, as it is compelled to develop, increase, and die in the sun; whilst animals have a muscular system that enables them to move from place to place, and search out each other. The flower is the part of the plant which contains the sexual organs. These may be separate, and are sometimes united, and the union is called hermaphrodite.

There are certain plants in the 21, 22, and 23 classes of Linnæus, whose flowers have male or female organs only. Monoicous plants have sometimes the sexual organs situated at a greater or less distance on the same branch. Some, on the contrary, have the male organs on one flower, and female on another, as in all the dioicous plants: these are termed unisexual, and male and female flowers. The winds transport the pollen to the female organs, as do bees, butterflies, and other winged insects in flying from flower to flower.

Nature, ever wise in her works, has placed male and female plants sufficiently near to each other, that they may celebrate their amours, and sometimes even by the wings of the wind, or extraneous influences.

The reproduction and perpetuation of plants is not only curious and instructive, but illustrative of generation in the human species.

The flower, the most tender, beautiful, and remarkable on account of its form and variegated colours, is generally composed of four principal parts, of which two are essential to generation—the stamen and the pistil; two others which exist for ornament, and protection against external bodies—the calyx and corolla. Such is the arrangement of these parts in proceeding from the exterior to the interior mechanism.

Reproduction of Vegetables—Sexual Organs of Plants.—The calyx is that part which surrounds the flower, which varies in colour, consistence, and the number of pieces which compose it, all of which are united at the base. It may consist of one, two, or three pieces, and these are called phyllæ.

The corolla is placed within the calyx, and forms the inner envelope of the stamen and pistil. Linnæus ingeniously compared this to the nuptial bed or the theatre of the amours of plants. It varies in form and colour, and like the calyx consists of one or many pieces.

The stamen is the *male* sexual organ, is the third part of a flower which proceeds immediately from the corolla, and its use is to fecundate the pistil or female organ, which is placed in the centre of the flower. This organ is composed of the filet and anther. The filet is not always present, as it is not indispensable to fecundation, but its summit is the anther, without which fecundation cannot occur.

The anther consists of a fine membranous sac, in the interior of which is a very fine powder called *pollen*. The anther is compared to the glans or head of the male organ in animals, and the filet to the body of the same organ.

The *pollen* or seed, consists of very fine grains, in the centre of which there is a subtle fluid possessing a similar odour to the semen of the male animals, and causes fecundation, by its action on the pistil.

Flowers in general have several stamens, and fewer pistils, so that we may fairly conclude that plants are generally polyandrous, that is to say, there are many males or husbands for one female, as among certain animals, and even the human species in certain eastern nations, and in a state of concubinage in more civilized countries.

Linnæus based his beautiful classification of plants on the number of stamens or vegetable husbands. Thus his first class is monandria, one stamen; his second, diandria, two stamens; and so on to the eleventh class, dodecandria, from eleven to nineteen stamens; the twelfth, icosandria, from twenty to a hundred stamens; the thirteenth, polyandria, from twenty to a hundred stamens, inserted at the tube of the calyx, which is often united with the ovary; the fourteenth class, didynamia (two powers), four stamens, two of which are longer than the others; the fifteenth class, tetradynamia (four powers), six stamens, four of which surpass the other two in size.

The stamens, or male organs, are sometimes united in different bundles, which led the illustrious Swede to add four other classes. Sixteenth, monadelphia, one brother, when all the stamens are united into one; seventeenth class, diadelphia, two brothers; eighteenth class, polyadelphia, many brothers; nineteenth class, syngenesia, simultaneous generation, when many stamens are united by the anthers, and not by the filets, so as to form a tube which is freely traversed by the style of the pistil; the twentieth class is gynandria, which signifies woman and man, the male and the female—in which the stamens are attached to the pistils.

In fine, there are plants in which the sexual organs are not in the same flower, and these are divided into three classes. Twenty-first class, monœcia, one house or family; twenty-second, dicœcia, two families; twenty-third class, polygamia, hermaphrodites in which the male and female organs are united or unisexual; lastly, there is the twenty-fourth class, in which the sexual organs escape detection with the eye, and these are called cryptogamia—hidden marriages.

The *female* organs of plants are the following:—

The pistil is in the centre of the flower, and is the female organ; it is composed of the *ovary*, the *style*, and the *stigma*. The *ovary*, derived from the word ovum or egg, because it contains small grains, germs, ovules, or rudiments, is the inferior part of the pistil, which is supported by the receptacle or base of the calyx. When incised, or cut transversely, it is found to contain grains, ovules, or eggs.

The stigma is the superior part of the pistil, which transmits to the ovary the pollen or fecundating powder of the male organ.

The style, which does not always exist in all plants, is a thread-like canal, situated between the ovary and stigma, whose use is to transmit to the first the fecundating powder.

Though the stamens or male organs are much more numerous than the pistils or female organs, yet, in some plants, the latter exceed the former in number. The number of pistils has served Linnæus for a division of a certain number of these classes into orders.

First order, monogynia, one pistil; second order, digynia; third order, trigynia; fourth, tetragynia, four pistils.

Reproduction—Amours of Plants.—Having succinctly described the reproductive organs of plants, let us now direct our attention to the mechanism of their functions, which have for their object the reproduction of the species.

The celebrated Linnæus first gave the physiology of the reproduction of plants. According to him, the flower forms the theatre of their amours; the calyx is considered the nuptial bed; the corolla the curtains; the anthers are the testicles; the pollen the fecundating fluid; the stigma of the pistil the external genital aperture; the style the vagina, or the conductor of the prolific seed; the ovary the womb; the reciprocal action of the stamens on the pistil, the copulation or consummation of the sexual intercourse.

It is only at the period of floration, or the development of the flower, that the marvellous unions or marriages of plants are celebrated. The sexual

organs of male and female exhale a spermatic odour, while they become more sensitive, and acquire a degree of action visible to the naked eye. Then the functions of generation commence, and are six in number. 1, Sexual approach; 2, dehiscence or ejaculation of the male organ; 3, absorption of the prolific pollen or fluid by the female organ; 4, fecundation; 5, gestation; and, 6, dissemination or expulsion of the fruit from the ovary.

I. *Sexual Approach—Copulation—Coition.*—When the flower is developed and perfected, the sexual organs act on each other; the male organ (anther) becomes erected, and directs its summit or head towards the stigma (genital fissure), so as to shed on its surface the pollen or prolific fluid.

In some hermaphrodite flowers which have ten stamens, as the fraxinella, ruta, &c., each approaches the female organ, and having shed its seed, resumes its original position, to give way to the nine others, which alternately perform the same function.

The corolla contracts, in some flowers, so as to bring the stamens nearer the pistils; and in aquatic plants, the flowers elevate themselves above the surface of the water, while copulation is effected, and then they plunge again into their former element, and bring forth their fruit. Linnæus observed, that when the stamens were longer than the pistils, the flowers were vertical; when the pistils were longer than the stamens, the flowers were inverted; and when both were equal in length, the flowers were pendent. In this manner sexual approach was facilitated, and insemination effected in all hermaphrodite flowers.

II. *Dehiscence, or Ejaculation of Pollen or Seed.*—The pollen of plants is the fecundating powder, and consists of a number of small sacs, invisible to the naked eye, in which a fluid exists, which is analogous to the spermatic liquor in man and animals. The rupture of these sacs is to allow the escape of the pollen, termed dehiscence, and is similar to the emission of seed in animals.

The surface of the stigma (genital fissure in animals), presents a number of apertures, communicating with the ovary, or directly by the filiform (thread-like) canal called style, and which is analogous to the vagina in animals. The ovary of plants, like the uterus in animals, possesses a power of absorption or suction of the male fluid, which it communicates to the ovule or germ. It is the action by which the ovary draws to itself either the seed, or the vapour arising from it, *aura seminalis*, and which action is termed pollinic absorption. This is analogous to uterine absorption in female animals.

The physiology of human generation informs us that the womb absorbs or sucks in with avidity the male fluid, and also that impregnation follows the slightest penetration of the virile member.

The stigmata of flowers, like the organs of most animals, in the season of amours, are bedewed with more or less humidity, acquire more heat, and even become odorous. This organ in the sensitive plant, tulip, &c., becomes congested and contractile, not only after the application of the fecundating powder, but when submitted to any kind of stimulation. The arum of Italy developed so much heat under the same circumstances, as to be appreciable by the thermometer. We see the female organ in the crown imperial, the laurel of St. Anthony, &c., depress itself towards the male organ, which it surpasses in length. We even observe tremblings in the Parnassus de Marais, when it receives the exciting impression of the fecundating pollen. Eranté has beautifully described these phenomena in his delightful work, De Connubiis Florum *.

* ———————— "Dat pronubia signum
Aurora exoriens; fila obriguere; dehiscunt
Folliculi; volat aura ferax tectoque reflexa
Præcipitat perque antra tubæ perque antra placentæ;
Ova tument; guadet flos femina prole futura."

III. *Fecundation—Impregnation of the Germ—Conception.*—The seminal fluid of the pollen having been transmitted to the ovules or germs in the ovary, these rudiments of life acquire a new mode of vitality; they rapidly increase, and are transformed into real grains, which are capable of giving birth to new vegetable beings, whilst they are placed in a situation most favourable for germination. Such is fecundation in plants; and it does not differ from what we term conception in female animals.

So soon as fecundation is effected, both the male and female sexual organs of flowers, except the ovary, decay and die, as nature has accomplished her object, and left the elements of future generations for development. The ovary swells, and becomes filled with a fluid, which soon acquires consistence, and finally becomes the fruit. This process is termed fructification. These organs can no longer contribute to the perpetual renovation of the species. "Reproduction," says Merat, "is the end of all the cares of nature, for which she has prepared the most perfect apparatus. The act being finished, all enter into repose, all fade, all vanish. Retard fecundation, impede it by any means, and the flower preserves the freshness of its calyx for a long time."

IV. *Development of the Ovules—Gestation—Pregnancy.*—The ovule remains a certain period, as in animals, until it develops, and is transformed into grains, which are capable of giving birth to new individual vegetables. We shall see, in studying the fruit, the processes employed by nature to effect this object.

V. *Dissemination—Dehiscence—Parturition.*—These terms are synonymous, and mean the escape of the grain from the fruit, and are analogous to parturition in women and animals.

Fructification—Analysis of the Fruit.—The fruit is nothing else but the ovary arrived at perfect maturity. It is composed of two principal parts—the pericarpe and the grain.

The pericarpe is that part of the fruit which contains the grains, and the cavity of the pericarpe may be simple or multiplied, and the fruit may be like the ovary, unilocular, bilocular, or multilocular, according to the number of cavities it contains. It is composed of three other parts: 1, the epicarpe or external membrane, which covers the fruit externally; 2, the sarcocarpe, or pulpy part of the fruit, which is situated immediately under the epicarpe; 3, the endocarpe, or the membrane which lines the internal cavity of the fruit, and which is in direct contact with the grains. It is easy to understand this description, by examining an apple.

There is also a communication between the seed and the pericarpe in some instances, which is termed trophosperme or placenta. We see this in the pod of a garden pea. The seed is covered by a membrane named episperme. There is also a small prolongation from the trophosperme to the grain, which is termed podosperme, which means the foot or root of the seed, and it establishes a means of communication between the ovules and the pericarpe. It is through this prolongation that the ovules have the nourishment necessary for their transformation into grains, like the umbilical cord in women and animals. The small cicatrix on the grain is called the umbilicus, as in man, and it results from the detachment of the podosperme or umbilical cord from the fruit. The examination of a pea affords a perfect view of all these parts.

Means for the Dissemination of Plants.—The means which nature employs to disseminate plants on the surface of the globe, and to prevent the extinction of the species, are worthy of attention. The chief of these means is dehiscence (parturition of a plant), which consists in the rupture of the pericarpe to allow the escape of the seeds. This operation, as in animals, does not take place until the germs have acquired all their maturity. Then the grains endeavour to escape, rupture the connections which retain them in the pericarpe, and escape on the surface of the earth, to produce new beings,

as without this occurrence all vegetables would disappear on the surface of the globe. Nature employs a number of means for the propagation of plants in different parts of the earth, and to prevent the extinction of the species; as the mode of dehiscence of certain fruits, the promptitude of germination in a number of grains, the power which others possess of remaining incorruptible for a great length of time, the winds and the waters, which transmit them to a great distance, the animals which swallow them entire and afterwards expel them, and lastly, their great fecundity. A few illustrations may be given of each of these wise contrivances, as all of them afford peculiarities, which are extremely curious to those desirous of examining and observing the propagation of vegetables.

Dehiscence or Dissemination.—There are some fruits whose pericarpe, at the period of maturity, opens with such rapidity that the grains are projected with an elastic force to a very considerable distance, and sometimes with a great noise. We observe this in the willow, the fraxinella &c., and it is familiar to all horticulturists.

Promptitude of Germination.—There is a vast number of plants which germinate with astonishing rapidity, some even in the short period of three days.

Incorruptibility.—Most grains, except the oleaginous, remain incorruptible; some have remained forty, fifty, a hundred, and even a thousand years. Some have been found between the bandages of Egyptian mummies, which retained their power of germination. Mr. Houlton mentioned a fact of this kind in his lectures on botany, delivered before the Medico-Botanical Society of London.

Winds and Waters.—A vast number of grains are so light that they may be transported to great distances by the winds; others float in the air, and according to some botanists, have been transmitted from one country to another, and even from one continent to another. Thus, it is said that the erigeron of Canada was transported by the winds from North America to Europe. In the same manner it is stated that rivers, torrents, the waters of the ocean, transport seeds to a great distance, from one island to another, and from one continent to another. The cocoa of Maldive islands is said to be conveyed by the ocean to the Sechelles. The coasts of Norway present fruits which were transported by the same means from America.

Germination.—When the seeds of plants are placed on the earth—and they are shed where they grow, because the season of ripening is also the natural season for sowing—they become covered with the fallen leaves, or by the treading of cattle or other influences, as by the rain, wind, &c. It is necessary for perfect germination, that there should be a free air, a moderate degree of moisture, and a temperature suitable to the kind of seed. The heat of the soil at seed time, whether in spring or autumn, in this climate, is from 40 to 50 degs. of Fahren.; and this is sufficient for corn and all other plants suited to the soil of Great Britain and Ireland. It is an axiom, that the most perfect and sound seed produces the most vigorous plants.

A certain degree of humidity softens the pericarpe, husk, or shell; the chemical constituents of air and water are absorbed, and with the excitement of a necessary degree of heat, the whole swells, the rostells or seminal points protrude through the integuments, one descends into the earth and the other ascends into the air and forms the infant stem. The size of the seeds will determine the depth at which they ought to be placed from the surface of the soil. It is also a fact that defects and hereditary diseases are almost always as hereditary in vegetables as in animals. If the parent had any peculiar manner of growth, either good or bad, the seed will surely inherit it. Although this is a general rule, it is not without exceptions. It is also ob-

served that a frequent change of seed is a necessary expedient in cultivation in order to insure the best returns. The seed not only requires a change from one soil to another, but also from one country to another. The seed is the result of generation.

CLINICAL REPORT

OF

CASES OF DISEASES OF THE HEART, TONGUE, MAMMA, OF CATARACT, ICHTHYOSIS, AND CONGENITAL ARTHRITIS, SUCCESSFULLY TREATED WITH IODINE,

AT THE

WESTERN DISPENSARY, WESTMINSTER.

With Remarks on the Efficacy of Strychnine in Nervous Disorders, and of Secale Cornutum in Hæmorrhages, Urethritis, Vaginitis. Read before the Medico-Botanical Society of London, June 8, 1836. By Dr. Ryan.

My Lord and Gentlemen—In submitting the succeeding remarks to the notice of the Society, my object is to extend our therapeutical agents, and to prove the efficacy of certain remedies, in many diseases, for the treatment of which they have not been generally prescribed. I am well aware of the prejudice and scepticism entertained by some against new remedies, and even against those generally in use, when employed in diseases different from those for which they are usually recommended. But, to obviate this difficulty, I have selected a number of patients, who were observed by others, as well as myself, and whose treatment differs from that usually adopted; and it is to be hoped will be more generally employed in a class of diseases hitherto deemed incurable.

The cases which I am about to describe have been observed by several industrious medical students, who, in conformity with the curriculum of education required by the Society of Apothecaries in London, for examination for their licence, have attended the practice of the physicians at the public institutions hereafter mentioned. I think it right to state this fact, as the diseases which I shall notice have been treated by new remedies, the efficacy of which some medical practitioners may feel disposed to doubt. It will, therefore, be necessary to record the names of the gentlemen who observed and examined the patients, and can testify as to the effects of the treatment employed. A few of these individuals have done me the favour of attending the Society's Meeting this evening.

Case I.—*Hypertrophy and Valvular Disease of the Heart treated with Hydriodate of Potass.* T. D., aged 30 years, of a thin, spare habit, dark complexion, and bilious temperament, a painter, was admitted under my care at the Western Dispensary, Charles Street, Westminster, Feb. 24, 1834, when he gave the following history of his disease. About seven years ago, he was admitted an out-patient at the Westminster Hospital, under the care of Dr. Bright, who told him he had disease of the heart, for which he remained under treatment during a period of seven months. He was cupped three times on the region of the heart. He did not obtain much relief, and became a patient at this dispensary, under the care of Dr. Furnival, who also told him that his heart was affected.

In 1831, he became a patient of Mr. Kershaw's, at the Millbank Street Dispensary, where he received so much benefit, that his health was very much improved; but his disease became worse, in May, 1833, when he was readmitted into the Westminster Hospital, under the care of Dr. Roe, who ordered him to be cupped and blistered repeatedly, during a period of four months, but without any lasting benefit, as he was worse on leaving than on entering the hospital. He has since applied to private practitioners, but being unable to follow his employment, he has not the means to purchase medicine, or obtain medical advice. His symptoms at present are the following. The impulse of the right auricle of the heart is so strong as to elevate the stethoscope of the cardiac region, and is also distinctly perceived in the anterior and posterior surface of the right side of the chest. It is not audible on the left side of the sternum. The impulse of the right ventricle is also considerably augmented, and can be heard in the epigastric region. There is a loud bellows-sound (bruit de soufflet) in the right auricle, auriculo-ventricular aperture, and ventricle. The impulse in the left auricle and ventricle is slightly increased, but there is a distinct bruit de soufflet in both cavities and in the auriculo-ventricular aperture. The pulse is nearly natural; and there is a sense of weight at the right region of the heart, near the sternum; the respiration is laborious, and greatly impeded by exertion of any kind, as by ascending a staircase, or other elevated situation, and also by coughing. There is constant and severe headache which is, if possible, more distressing than the unpleasant sensations in the region of the heart, and for which he had leeches almost every night in the hospital, and

occasional blisters. His general health is bad, his appetite diminished, and his bowels constipated.

This man was examined since his admission to the present period, June 1836, with the stethoscope, by more than fifty gentlemen, who now attend, or have attended my lectures at the Medical School, Gerrard Street, Soho, or my dispensary practice, a few of whose names I subjoin, as most of them had also witnessed the whole of the succeeding cases:—The Rev. Mr. Higginbottom, Edgware Road; Mr. Verral, Surgeon, Newhaven, Sussex; Mr. Frederick Dawson; Mr. Charles Lane, of Chelsea; Mr. John Daly, Mr. Weathers, Mr. Buxton, Mr. Booth, Mr. Peplow, Mr. Guy, Mr. Tyte, and Mr. Woolmer, of London; Mr. Henry Middleton of Leicester, Mr. Frederick Hanham, of Bath; Mr. Edwin Howard, of ——; Mr. William H. Hayden, Mr. Oakley, and Mr. Parsons of Bath; Mr. Rackett, of ——; Mr. Crickmay, of—— &c. &c.

Diagnosis.—There could be no doubt that this man laboured under hypertrophy and dilatation of the right cavities of the heart, with cartilaginous induration of the valves of the right and left cavities. There is no difficulty in distinguishing diseases of the heart from asthma, for which they are generally mistaken.

Prognosis; unfavourable; disease hitherto incurable, though alleviation may be expected from local depletion, hydriodate of potass, combined with digitalis, colchicum, and hydrocyanic acid, as advised by M. Magendie, in similar cases of hypertrophy; but the valvular disease is irremediable. The celebrated physiologist, whose name I have just mentioned, prescribes four drachms of hydriodate of potass, with two drachms of tincture of digitalis, in an eight-ounce mixture, of which a table spoonful is to be taken morning and evening; but I have never known a patient bear this dose without inconvenience; and I accordingly commence with a less quantity, and gradually increase it. Thus, T. D. was ordered the following medicines on the day of his admission:—

Treatment.—Pil. colocynth: c. hydr. subm. ℈ m. n. donec alvus rite responderit.

Admov. c. c. regioni cordis dextræ, et detrahatur sang. ad ℥ vj, vel ℥ viij.

℞. Potassæ hydriodatis, ℥ ij;
Aquæ menth. pip., ℥ viij;
Tincturæ digitalis ℥ j;
Acidi hydrocyanici, *m.* viij;
Liquoris colchici, *m.* xx.
Dosis coch. med. manc vespereque.

These remedies were continued for five weeks, the hydriodate of potass having been increased to four drachms, when the following amendment was reported.

April 7.—Is better to day than he has been for the last nine months; sensations in the region of the heart very much diminished; headach greatly relieved; impulse of the right cavities of the heart very much diminished, and little more than normal; bruit de soufflet very distinct, but not so loud; pulse natural; appetite very much improved; bowels regular by the pills; strength very much better. To continue his medicines.

April 28.—Is so much better, that he wishes to give up his letter, and be discharged, "as he finds himself nearly well." Advised to continue his medicines for some time longer.

May 15.—Impulse of the right side of the heart nearly natural; bruit de soufflet diminished, but still distinct in both sides of the heart; headach much relieved, and only severe at times, after any exertion. To continue.

He persevered in the use of medicines, and was frequently cupped on the region of the heart, until June 30, when he reported as follows:—

"Has felt better during the last ten days, than during the last ten years;" wishes to be discharged, as he is anxious to go into the country, and would be extremely obliged if his prescription were written, so that it might be compounded by any chemist. This request was necessary, as the formula was one of the dispensary. Has been cupped during his attendance twenty-six times on the region of the heart, and has had blisters and antimonial ointment repeatedly. He was informed, that some practitioners would not exhibit such large doses of the chief remedy he had been taking; and he stated, on his return to town, that four of the medical officers of a vicinal infirmary declined to order him the medicine, though they told him that he had disease of the heart. He has reapplied at the Western Dispensary this day, and I found that the valvular disease of both sides of the heart continues, but that the impulse is nearly natural.

Remarks.—Some practitioners might be disposed to ascribe the relief obtained in this case to the cupping, digitalis, colchicum, and hydrocyanic acid, more than to the hydriodate of potass; but repeated experience, in many subsequent cases, in which cupping was not employed, warrants me in drawing the opposite conclusion. Several cases of a similar kind have fallen under my care, the subjects of which were delicate women, for whom cupping could not be employed; yet the most decided success was obtained in abating the hypertrophy and inordinate cardiac impulse, by the hydriodate of potass in combination with the other remedies already mentioned. M. Magendie observes, that the disease usually begins to disappear in a month or six weeks; and it must be manifest to every well informed medical practitioner, that there can

be no objection to the use of the remedy in proper doses. In this case, as in numerous others, the hydriodate of potass acted as a tonic;—a fact first attested by M. Lugol, and to the accuracy of which I can bear ample evidence.

The alleviation afforded in this case, will probably prolong life for some years; and there would be a positive certainty, were not the patient, in the greatest distress, unable to make such corporeal exertion as would enable him to obtain comfortable support for himself, a wife, and three infant children. He has been refused parochial aid unless he resided in the workhouse, and, as he observed, "left his wife and children to perish." I can attest the truth of his statement; for although I certified as to the incurability of his disease, and that he had been cupped twenty-six times, he was refused temporary relief, until I waited on the guardians of the poor on his behalf; and the result was, "that he must come into the house." This man is now in attendance, and may be examined by any gentleman who pleases.

Case II.—*Hypertrophy with Dilatation of the right Auricle of the Heart.*—T. B., aged 36 years, athletic, a bricklayer, of temperate habits, residing in Medway Street, Westminster, admitted under my care, April 21st, 1835. States that three months ago he had a miraculous escape from drowning in the Thames, in consequence of the upsetting of a small boat in which he had been rowing. Since that period he has suffered from a sense of weight and oppression in the right side of the chest, and also from intense headach. He was told that he had remained insensible for twenty minutes after having been removed from the water; and thinks he can never forget the shock he received on the occasion to which allusion has been made.

On examining his heart with the stethoscope, there was a strong impulse of the right auricle, and that of the ventricle was also augmented. The left cavities also afforded a stronger impulse than natural. He complains of intense headach, want of sleep, loss of appetite, confined bowels, and such depression of spirits, that his wife is fearful that he might commit suicide, if left alone.

He was ordered purgatives, leeches to the head, cupping and blisters to the region of the heart, and the mixture of the hydriodate of potass, as in the former case. He continued under treatment until the 14th of July, during which period he was regularly and assiduously attended by Mr. Charles Lane, of Chelsea, and myself, whenever Mr. L. wished me to visit him. He now regained his health, and was able in August to pursue his usual employment.

Remarks.—It is a well established fact, that depressing passions, and fear especially, will first cause functional disorder, and may finally induce structural disease of the heart. The case just related is an illustration of the pathological fact. I have met with many similar examples, and such must be familiar to every observant practitioner. I shall describe one case of this kind; but must observe, with respect to T. B., that he considered leeching and cupping most injurious to him, and frequently refused to allow the latter mode of depletion to be repeated. His restoration to health, so far as the disease of his heart was concerned, could only be ascribed to the hydriodate of potass.

Case III.—*Structural Disease of the Heart, caused by Fear, relieved by Hydriodate of Potass.*—A. H., aged 24 years, of a florid complexion, sanguineo-nervous temperament, was admitted under my care Dec. 23rd, 1835. She states that she is unmarried, and that about three years ago she was greatly alarmed by an intoxicated person having thrown a missile at her head while serving in her stepfather's shop. She is excessively nervous and hysterical since that occurrence. Catamenia regular, and general health good. On examining her heart by auscultation, its pulsations were 163 in a minute; the impulse in the right auricle and ventricle was excessively violent, and the action of the left rather diminished but astonishingly rapid. She complained of excruciating headach, which was increased by coughing, exertion, ascending a staircase or any elevated situation. Several medical students examined her heart and lungs with the stethoscope.

Habeat pil. colocynth. c. hydrarg. subm. i, m. n. ad alvi solutionem.

℞. Potassæ hydriodatis, ʒiss;
Aquæ cinnamomi, ℥vj;
Tincturæ digitalis, ʒj;
Liquoris colchici, *m.* xxx.

Sit mistura, cujus capiat cochleare amplum ter in die.

She continued to take her medicines until the 2nd of April, 1836, when the hydriodate was increased two drachms; a blister was applied under the left scapula, and kept open with the savin cerate for a fortnight.

June 4th. Is very much better; thinks she can soon give up her letter; is very much improved since she came to the dispensary; does not feel any inconvenience from her heart unless when agitated, or after exertion.

The Rev. Mr. Higginbottom, Mr. Woolmer, Mr. Tyte, and Mr. Rossborough, were present when she made this report.

June 8th. Reports herself better, in the presence of these gentlemen.

Case IV.—*Hypertrophy of Right Auricle and Ventricle cured by Iodine.*—W. B., aged 23, a gardener, of a florid complexion, com-

plains of severe headach and sense of oppression on the right side of the heart. He has lived temperately, never had rheumatism, nor any affection which caused him to fret. There is violent impulse in the right auricle and ventricle; the pulse is regular; the face sometimes purplish.

He became my patient in December, 1834, and continued under the use of medicine prescribed in the first case until the 14th of April 1835, when he was free from disease. He has not since applied to the dispensary, which he would have done had his complaint returned, as he resides in the vicinity of the institution.

I might give the histories of several other cases of disease of the heart treated with hydriodate of potass, which were greatly relieved; but enough has been stated to induce practitioners to give the remedy a fair trial. There are now some interesting cases under my care, both at the Metropolitan Free Hospital and at the Western Dispensary, and these are daily observed by gentlemen who are now present.

According to my observation, disorder of the right cavities of the heart is much more frequent than of the left, though others entertain the opposite opinion.

Case V.—*Ulceration of the Tongue cured by Ioduret of Lead.*—M. S., aged 43 years, was admitted under my care December, 1835. She has suffered for the last five years from ulceration of the tongue, for which she consulted a great many physicians and surgeons, and took a vast quantity of medicine, without benefit. She presented a large bundle of prescriptions, in which arsenic and mercury predominated. She was ordered the following remedies:—

Habeat pil. colocynth c. cum. hydr. subm. m. n.

℞. Plumbi iodureti, ℈j;
Aquæ fontis, ℥ vj;
Tinct. opii, ʒj.

Fiat gargarisma sæpe in die usurpandum.

She was discharged cured in three months. Most of the gentlemen already named observed the treatment of this patient.

Case VI.—*Malignant Scirrhus of the Mammæ treated with Iodine.*—M. H., aged 32 years, residing in Wardour Street, Soho, became a patient of mine in October, 1835. There is hard tumour in her left breast, which is moveable, about the size of a large hen's egg. A darting pain is frequently experienced in it, which is so severe as to compel her to stop in the street. She has been advised by Sir Astley Cooper and the surgeons of the Middlesex Hospital, to have the tumour removed, but she has too great a dread of the operation. She was ordered the following remedies:—

℞. Infusi quassiæ, ℥ vj;
Ferri hydriodatis, ʒj;
Olei menth. pip. *m* v.

Sumat cochl. ampl. bis vel ter in die.

℞. Hydrarg. proto-iodureti, ℈j;
Adipis preparatæ, ℥ iss;
Extracti belladonnæ, ʒj.

Fiat unguentum, cujus fricetur pars affecta, mane nocteque, drachmâ.

She has continued these remedies until this date, June 8th, 1836. The lancinating pain is entirely removed; she states that the tumour is considerably diminished in size, but neither I, nor Mr. Oakley, nor Mr. Parsons, can perceive any marked diminution, but we all agree that the disease has not advanced while under treatment.

This plan succeeded in another case for which excision of the breast was considered the only remedy; but I have known it fail in other examples.

Case VII.—*Cataract treated with Hydriodate of Potass.*—A. B., aged 50 years, was admitted under my care at the Western Dispensary, April 9, 1836. States that she has been bad since Christmas last, and suffered from defective vision, which was induced by a great deal of needle work at night. The right eye became inflamed; and when she was relieved she saw much better laterally than in front. There was great pain in the left eye, but it was not inflamed. The lens of the right eye is of a light-greenish colour, and that of the left is also dull and obscure. Mr. Oakley and Mr. Peplow frequently saw this patient. She was ordered the hydriodate of potass, two drachms in six ounces of peppermint-water, and compound cathartic pills twice a-week.

May 9th. The sight is much better in the left eye than when she first applied, but is not improved in the right.—Perstat.

May 14th. Vision improves in the left, and slightly in the right eye.—Perstat.

June 6th. The sight is now so good that she is able to employ herself at needle work; the lens of the right eye is clearer, and vision is considerably improved in the organ.—Perstat.

Case VIII.—*Congenital Arthritis treated successfully with Hydriodate of Potass.*—An infant, aged 7 months, was placed under my care at the Western Dispensary, in February 1836. The mother stated that it had never straightened its legs or arms since birth, and always cried when she attempted to move them. The knee and elbow joints are enlarged and painful on pressure or motion. The infant is extremely feeble and irritable, and sleeps very little.

℞. Aquæ anethi, ℥ iss;
Liq. opii sed., *m.* viij;
Syrupi simplicis, ʒ iv.

Detur coch. min. ter quaterve de die.

℞. Olei camphorat. Ph. Ed. ℥ iij;
Potassæ hydriodatis, gr. xv.

Sit embrocatio ter quotidie applicanda.

This treatment was continued until the 27th of April, when the mother considered her infant [illegible] marked by most of the gentlemen

Case IX.—*Ichthyosis successfully treated with Iodine.*—M. H., aged 16, a healthful girl, has had a scaly eruption on both knees during the last six years. She has not as yet menstruated, neither had her mother or sisters until the age of 18 years. Her brother, aged 12 years, has the same kind of eruption on his knees and legs. The father of these patients labours under dandriff, according to his wife's account, and his father had a scaly disease all over his body. The boy and girl resemble their father in mind and constitution more than their mother, and though they have brothers and sisters of different ages, who do not resemble the father so much, none of them have any eruptive disease.

May 15, 1836.

℞. Infusi gentianæ c., ℥ viij;
Liquoris arsenicalis, *m.* xl;
Olei menthæ pip., *m.* v.

Dosis coch. ampl. bis in die.

Pil. cath. c. bis in hebdomada.

℞. Potassæ hydriodatis, ʒ iss;
Adipis pptæ. ℥ iss;
Tinct. opii, ʒ j.

June 2. Disease much diminished in both cases, except on the knees, where it is dense and hard; and for which the following lotion was ordered, in addition to the above remedies.

℞. Potassæ hydriodatis, ℈ j;
Iodinæ pulveris, ℈ ss;
Aquæ destill., ℥ j.

July 3. Discharged cured.

Case X.—*Alopecia—Loss of Hair on every part of the Body—Regeneration.*—J. T., aged 50, was admitted under my care at the Metropolitan Free Hospital, May 30, 1836, in consequence of influenza. He stated that there was something remarkable in his former disease, which he wished to mention. About 20 years ago all the hairs on his body fell off. He first observed white patches on each side of his chin, these extended, and he soon lost all his beard, which was remarkably black and strong; then his whiskers, eyebrows, eyelashes, and the hair on and about the pubes and anus. The hair fell off in patches from each side of the head, and in the course of eight or nine months, there was not a single hair on his body. He was under the care of Dr. Wells and Mr. Fernandez, of Lamb's Conduit Street, and was also a patient in St. Bartholomew's Hospital. He knows no cause for his disease, unless a discharge of black blood from his bowels, which was most profuse, and at times ran into his shoes. He suffered from this for 18 years before the falling of the hairs in 1811, and was so reduced by it in 1814, that he was ordered to his native place in Devonshire.

The hair returned on his head in about six months, but was greyish instead of black. It re-appeared over his ears and on the crown for a long time. It was remarkable that while the hair returned in some parts of the head, it fell off in others. His appearance was so altered before the regeneration of the hairs, that his brother and acquaintances did not know him. The capillary growth on the face and pubes disappeared simultaneously, and the new growth, in both situations, was thin and sparing. During this absence of the hair the general health was unaffected, the voice was unchanged, and the sexual appetite remained unimpaired. He gave the preceding history in the presence of my colleagues, Mr. Lucas and Mr. Dalrymple, surgeons to the Hospital.

At present (June 8th, 1836) he has an abundant supply of iron-grey hair on his head, the crown is covered, and there are a few patches on the occiput, in which the hair is very thin and fine. His whiskers are of this last description, the hairs are few; the beard is weak, and he has occasion to shave only twice a-week.

Lemery relates a case somewhat similar. It was that of a man who had been subject to hypercatharsis for several months, and then the hair fell off his head, eyebrows, axillæ, pubes, &c., successively. At the end of a year the trunk was deprived of hairs. The beard, which had formerly been strong and thick, returned thin and partially; but the hairs of the head were numerous and finer than in their normal condition.

This patient, as well as mine, suffered from disordered bowels; the one was excessively purged, the other had lost much blood for eighteen years from the intestinal canal.

This author relates another case, in which a man aged 57 years lost, during the winter of 1825—26, in the course of a month, every hair on his body. The hairs of his head, then of his beard, eyebrows, and eyelashes fell off in succession. He remained for two years in this state. In March 1828 he was attacked with pneumonia, for which he was bled, &c., and strange to say, during his convalescence, the hairs began to appear, at first very fine, but at the end of a month they had acquired their natural character. (Jour. de Progres. t. xxiv).

It is a physiological fact worthy of notice, that when eunuchs are mutilated during infancy, they are deprived of beard at puberty and afterwards, but they do not become bald.

It is generally admitted by authors, that alopecia most commonly affects the head, so that the case I have narrated is an exception.

Dr. Wells published an account of general alopecia in the Transactions of a Society for the Diffusion of Medical and Chirurgical Knowledge, vol. ii; but his patient had venereal disease, and was accustomed to use quicksilver in his occupation.

Remarks.—It is a well estab[illegible] on

I have deemed this case worthy of notice, as it corroborates others on record, and as it is attested by respectable testimony.

Effects of Strychnine in Various Disorders of Innervation.—I have found strychnine of extreme value in the following disorders; dyspepsia, hypochondriasis, hysteria, neuralgia in different parts of the body, spinal irritation, and the train of abdominal, thoracic, and other derangements dependent on this disease; hemicrania, hemiplegia, paraplegia, even when there is spinal distortion, for it is to be remembered, that sedatives will relieve, in such cases, partial paralysis in any part of the body, paralysis agitans (shaking palsy), nervous diarrhœa, apoplexy, asthma, palpitation and irregular action of the heart, certain forms of amaurosis, deafness, and disordered function in different parts of the body. The disorders now enumerated may depend upon derangement of function or innervation, or upon change of structure; and in either pathological state, a remedy which has the most powerful influence on the cerebro-spinal and ganglionic systems, cannot fail, like opium and other narcotics, to afford great relief. The gentlemen whose names I have mentioned in the commencement of these remarks, have had the most ample opportunities of observing my practice, and are willing to attest its efficacy. I have fully described my observations on this and many other new remedies, in my translation of a work entitled "A New Practical Formulary of Hospitals of Europe and America," the second edition of which has been recently published.

I shall narrate a case or two, which are, perhaps, worthy of attention.

Case XI.—*Paralysis Agitans in a Maniacal Subject, treated with Strychnine.*—J. H., aged 50 years, is severely afflicted with shaking palsy of the head, body, and extremities, for the last five years. He has been an inmate of the Hanwell Lunatic Asylum. He is a street preacher, and his complaints are greatly aggravated by singing. His mind is evidently deranged at present; he shewed great anxiety to enumerate the various prescriptions ordered for him. He amused the students exceedingly, by repeating from memory all the prescriptions, which were necessarily written abridged. This poor man was very much relieved of his shaking palsy by strychnine.

Case XII.—*Sudden Distortion of the Eyes, from Acute Ophthalmia, treated with Strychnine.*—J. B., aged 38 years, a mechanic, was seized with acute ophthalmia in a manufactory in Manchester. Both his eyes are permanently inclined upwards, and he is totally deprived of vision. He now supports his wife and three children by singing in the streets, but the police have interfered, and the magistrates have ordered him to be sent to his own parish in Manchester. He has taken strychnine in the dose of one twelfth of a grain twice a day without any benefit. He has given up his letter of recommendation with sincere thanks.

Case XIX.—*Involuntary motion of the Eyelids and Eyeballs, relieved by Strychnine.*—J. H., aged 47, has suffered from involuntary motion of the eyelids and eyeballs from birth, but is much worse of late, since he became dependent on the parish for relief. His father had also a similar complaint. He continued the use of strychnine for five weeks, when his disease was much diminished.

I have also found strychnine a valuable remedy in facial neuralgia, in hysteria, and morbid sensibility of the digestive organs, in young women who suffer from spinal irritation, a vast number of whom apply at public charities for relief.

Observations on the use of Secale Cornutum in Hæmorrhage, Urethritis, and Vaginitis.—Since Dr. Negri and myself submitted our observations, made on the efficacy of secale cornutum, in hæmorrhages, chronic urethritis, blenorrhagia, chronic vaginitis, or leucorrhœa, to the profession, in 1833, I have employed the remedy in numerous cases, and with decided success, both in hæmorrhages and in mucous discharges. I have repeatedly observed it as beneficial as any other medicine in urethritis after the acute stage has terminated. It also cures simple leucorrhœa very speedily. In these cases, the dose is about three grains every fourth hour. It ought to be combined with aromatic powder. I might mention many cases in which it proved speedily successful, but I shall briefly relate one of recent occurrence, which is still under treatment.

C. C., aged 14 years; moderately developed, chlorotic, became my patient, April 27, 1836. Her mother stated that she had suffered from a vaginal discharge from infancy to the present period; and likewise from incontinence of urine at night. She wets the bed every night, has not menstruated, appetite impaired, bowels constipated. She was ordered cathartic pills, and muriated tincture of iron, with opium for the last complaint, and the following for the former one.

℞. Pulveris secalis cornuti, ʒ ss;
——— cinnamomi comp. ℈j.
In ch. x. divide, capiat i ter in die.

June 4.—She has continued her medicine until this date. The vaginal discharge was removed in three weeks, and she wets the bed but once in a week. She was ordered to continue the mixture, and to repose on her side or face, as, by adopting this position, the urine collects on the lateral and anterior portions of the bladder, which are less sensitive than the posterior and inferior, in which there is the greatest supply of innervation.

The rapid cure of the vaginal discharge was remarked by most of the gentlemen

whose names have been mentioned in the commencement of these remarks.

She was seen this day, June 8, at the dispensary, by the Rev. Mr. Higginbottom, Mr. Woolmer, Mr. Tyte, and Mr. Rossborough.

There is still a portion of the profession opposed to the use of the secale cornutum, in tedious parturition, and these deny its efficacy. For my own part, I am as well convinced of its power in exciting uterine action, at any period of utero-gestation, as I am of the sedative power of morphia. It is scarcely necessary to observe, that the medicine ought to be good, and this is seldom the case, as it has no place in the British Pharmacopœia, and few know how to preserve it. I may be permitted to state that the medicine ought to be preserved from air and moisture, and kept in closely stopped bottles. It is also to be borne in recollection, that the astringent and occytocic doses of secale cornutum are widely different; and that medicines produce very different effects, according to the quantity administered.

Reviews.

An Enquiry into the Pathology, Causes, and Treatment of Puerperal Fevers; being an Essay for which the Fothergillian Gold Medal was conferred on the author, by the Medical Society of London, in March 1835. By George Moore, F.R.C.S. 8vo. pp. 247. London: Highley. 1836.

The author of this work has compiled a good account of the opinions entertained by ancient and modern authors, on the pathology and treatment of puerperal fever. He has referred to, and quoted a great many monographic essays and works, and placed before his readers nearly all the conclusions which have been arrived at by the profession. The work is ably executed, and will be one of reference. The author very judiciously followed the plan usually adopted by the best informed authors, and arranges his subject as follows:—Definitions and Pathognomonic Symptoms, Hippocratic Description, Order and Variety of Symptoms, Diagnosis, Usual Appearances on Dissection, Various Theories of this Fever, Causes and Concomitants, Connexion with Erysipelas, Contagion, Predisposing Causes, Atmospheric Influence, Contemporary Diseases, Effect of Gestation and Parturition, State of the Blood, Prognosis, Means of Prevention, Means of Cure.

These several sections are very graphically executed, and the various opinions duly acknowledged. The work evinces research and industry; it contains all that is known on the subject, and well deserved the prize which was awarded its author.

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Pathological Observations on Diseases of the Placenta. Part I. Congestion and Inflammation. By James Simpson, M.D. Read before the Royal Medical Society of Edinburgh. 8vo. pp. 47.

This is a very valuable compilation from most works on the subject, and abounds with much information, on a class of diseases which unfortunately are rarely discoverable, and consequently treated injudiciously. The author is well acquainted with modern medical literature, and has collected cases from all available sources. He has followed the example of our continental contemporaries, and produced a very instructive essay on a part of a large number of diseases. We hope he will follow up the undertaking; and, in the event of his doing so, cannot fail to obtain much applause from his brethren, and considerably advance an interesting department of pathology. The diagnosis of such cases is extremely difficult, and the treatment must depend upon the character of urgent symptoms. A knowledge of placentitis and other diseases of the organ connecting the mother and fœtus in utero will enable the obstetrician to explain some of the causes of the death of the offspring before birth, and the utter impossibility of preserving it in certain cases. So far this essay is valuable. The author is entitled to much credit for the research he has shewn in its compilation.

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On the Antidotal Treatment of the Epidemic Cholera: with a Sketch of the Physiology of this Disease, as deduced from that of Intermittent Fever. By John Parkin, M.R.C.S. &c., &c. 8vo. pp. 112. London: Highley. 1836.

The hypothesis of the author of this work is, that a poison is introduced into the blood in blue cholera, and that the best antidote is carbonic acid or carbon. He relates some cases of common cholera, and of the incipient malignant form of the disease, which

were accompanied by rice-coloured alvine dejections, and which were cured by repeated effervescing draughts. Should this plan not succeed, then a piece of burnt cork is to be pulverized and given in milk. In the state of collapse the patient is to inspire carbonic acid diluted with one or two parts of atmospheric air. Our author has not narrated any well marked cases of blue cholera cured by his favourite remedies, but examples of vomiting and purging during the prevalence of cholera, which many might not consider even premonitory of that disease. Thus we have observed numerous cases of this kind which were relieved by cretaceous mixture with opium, while others which were less violent were not improved and terminated in the blue disease. We therefore do not admit that every case of vomiting and purging during the choleric constitution of the weather, was real malignant cholera; and in our opinion most of Mr. Parkin's cases were of this description.

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A Sketch of the Medical Monopolies, with a Plan of Reform, addressed to the Right Hon. Lord John Russell, His Majesty's Secretary of State for the Home Department. By James Kenedy, M. R. C. S., Author of the History of Cholera. London: Moxon. 1836.

This essay is a very imperfect sketch of the medical monopolies in England, and contains scarcely an allusion to the history of similar institutions in Ireland and Scotland. Occasional quotations are made from a small part of the evidence given before Mr. Warburton's Committee, and fair comments are added. The author most probably thought that an exposition of the London Corporations, and a plan of reform of them, would do for those of the other sections of the empire; and we fully concur with him in opinion. We shall now place his plan of medical reform before our readers, and leave them to form their own conclusions of its merits. We shall offer a few comments only.

"*A Plan of Medical Reform, intended to Unite the different Classes of Medical Practitioners, and to place the Profession on a Solid and Permanent Basis.*

"My Lord—Before entering upon the second part of his subject, the individual who has the honour to address your Lordship will take the opportunity of stating, that, in the remarks submitted in the preceding pages, he has performed an unwilling task, and has been moved by no personal feeling or consideration. With the *system* alone it has been his object to contend, and if a review of the errors of that system had not appeared to be a necessary precursor of its removal and the substitution of a better, his pen would never have been employed in the exposure of those errors. Should his animadversions on the medical corporations seem too strong, he can only say that they have not been permitted to exceed the measure of his conscientious conviction of the deserts of these bodies, when estimated by their influence on medical science and the interests of the public. The writer is fully sensible that talent and private worth are confined to no station or order of men, and he is happy to acknowledge that in each department of the profession there are individuals who deserve to share in every honour it may have to bestow. In a process of reform or reconstruction, the fair claims of the meritorious of all classes should be carefully regarded. To adopt a different course would be to repeat the partial legislation which has already been the cause of so much mischief. Care must be taken that no section of medical men be preferred at the expense of another—that mere names be not mistaken for important qualities—or that, in censuring authority, the supposition be not entertained that there is more of public virtue in a Licentiate than in a Fellow of the College of Physicians.

"Hitherto, then, the practice of medicine in England has been constantly shifting into the hands of different kinds of practitioners. The mass of English physicians has been indiscriminately composed of doctors of medicine, of surgeons, and apothecaries, and the monopoly of general practice which this last body obtained in 1815 is rapidly bringing into importance the chemists and druggists, who now follow the example set by the apothecaries themselves, and act the physician by prescribing across the counter, and by affording occasional attendance.

"This singular state of things has been brought about by the operation of two opposing powers—the effect, on one side, of the mismanagement of the medical corporations, together with a long series of defective legislation on the part of parliament; and, on the other, the result of public patronage. The public have always required a vast number of medical men in the shape of general practitioners, and failing to obtain an adequate supply of such through the corporations or colleges of the faculty, they have been obliged to employ the mere retailers of drugs to act in that capacity. In this way the apothecaries have been elevated to the rank of physicians and surgeons; and

should the present artificial system of medical ranks continue much longer, the retail chemists and druggists will undergo a similar transformation.

"Under these circumstances, parliament will be called upon to review its past enactments, and to consider the state of the profession at large. It can scarcely be conceived possible that the legislature should again be led astray by corporations which represent not more than a few hundred individuals in England, Wales, and Ireland, that practise as 'pure surgeons' and 'pure physicians;' while the wants of the public in both kingdoms are supplied by the body of general practitioners, amounting in number to probably thirty or forty thousand, but whose connexion with the corporations ceased the moment they paid the fees for their diploma or licence to practise. The number of medical men in general practice, points out more cogently than could a volume of argumentation, the course which parliament ought to pursue in its deliberations. Is it not evident from this fact, and its being impossible for any person to practice judiciously in one department of the medical art without a knowledge of all the rest, that the chief aim of the legislature should be directed to the proper education of the general practitioner in medicine; that general practice should form, as it were, the *trunk* of the professional tree, and that the branches—namely, physic, surgery, &c.—should stand out more or less prominently from this trunk, according as their individual extension was favoured by the general demand.*"

"Medical men were made for the advantage of the public, and not the public for medical men. By, therefore, attending to the wants of the community, and the tendencies of its patronage, parliament will at once see its way through the maze of difficulties in which the neglect of this self-evident proposition has hitherto involved the subject of medical legislation. As the duties of a general practitioner require that he should possess the elementary knowledge of both the physician and surgeon, and as the physician cannot conscientiously practise without the elementary knowledge of the surgeon, or the surgeon without the elementary knowledge of the physician, does not the conclusion irresistibly follow, that a similar course of elementary education should be exacted from every practitioner in medicine, by whatever title he may choose to make himself known?"

No one can dissent from this conclusion.

"The present time is eminently favourable to the introduction of a general standard of professional education; for it is one of the existing anomalies that the practical examinations which a doctor of medicine undergoes, who is placed by courtesy in the first grade of the profession, are much *inferior* in strictness and extent to those of the general practitioner. Had it been otherwise, the sudden raising of the qualifications of the latter, by increasing the expense of education, might endanger a sufficient supply of that class which is most essential to the welfare of society. Not only is it favourable to the objects of change that the general practitioner's examinations are now the most strict; but, as will be shown hereafter, a still higher degree of medical qualification may be imposed upon this class without augmenting the cost of education, and, consequently, without endangering the supply. This may be done by laying down a more judicious course of study for the general practitioner—that is, by omitting some parts of the present course which are useless and expensive, and amplifying others which are beneficial.

The propriety of having one course of elementary professional study for all medical men, and of enforcing that course of study by act of parliament, being once admitted, there will remain very little to demand from the legislature. Medical men should then be allowed, as the natural consequence of their education, to practise in any or in all of the departments of the medical art as best suited their abilities and inclinations, and in whatever part of the British dominions they thought fit. In practice there should be no restraint or compulsion, for qualified persons, beyond public opinion and public patronage.

Were the members of the profession left thus unshackled, it may be inquired, would there arise spontaneously any distinction of rank? Or should the legislature interfere in this delicate point to create such distinction? Here also the public will be the best guide.*"

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* This proposition is at variance with a subsequent one, that all general practitioners should belong to the College of Physicians and Surgeons as the united trunk, and not the branches of the professional tree. Then the author makes the branches independent of the trunk, which is a bold undertaking.

* The public will always require distinctions, and the practical physician and operative surgeon, will be different individuals. This is so in all countries, and has been established since the origin of medicine. We cannot agree with our author, that the public only recognise seniors and juniors, as every one knows that they prefer certain individuals who have devoted themselves to certain branches. Thus, the public require obstetricians, lithotomists, oculists, auscultators, &c. &c.—a fact opposed to the sentiments of the writer before us.

"As has been observed, the public recognises only two broad distinctions amongst medical men—a senior rank and a junior rank. These distinctions *do not imply* the existence of grades or the *permanent inferiority* of one rank to the other. The difference is the result of age and experience, and amongst the members of the senior rank consulting physicians and consulting surgeons will be found. If the legislature were to interfere so far with this arrangement, under a new system, as to institute *a second series of professional examinations* which alone should entitle to admission into the senior rank, such interference would resemble the attempt which was made by the close corporations to establish *artificial* ranks, and could lead to nothing but confusion and disappointment. Medical men, were they free to practise as they thought proper, would never, as a body, willingly submit to a second series of examinations, to be examined by persons who were nothing more than medical men like themselves, for a mere honorary title. It is to the public that practitioners would look for promotion, and acknowledged reputation and extensive practice would be continually placing some of those who refused to undergo the senior examinations in a far higher position than could be conferred by any examination, and perhaps even much beyond the hopes or pretensions of the very persons who had been appointed to test their abilities. In order to avoid producing this contradictory state of affairs, no examining test should be introduced that could permanently exclude any individual from the senior rank.

"Were the legislature to draw a line between the senior and junior ranks, by determining that the senior should wholly consist of consulting physicians and consulting surgeons, this sort of distinctive mark would be as ill-advised, and would turn out to be still more injurious than an examining test. Under the operation of a *consulting* test, how would the qualification be ascertained? A young practitioner, who had never treated a dozen of cases in his life, might call himself (as many young men do at present) "consulting physician," or "consulting surgeon." Moreover, all medical men that are really engaged in consulting practice, using the phrase in its comprehensive meaning, do not *deserve* this rank; while others again, possessed of great ability and knowledge, have never attained it, owing to the demand for consulting practitioners being very limited, or to some other circumstances apart from professional merit. In short, a consulting test would be founded on a *particular mode of practice*, which is a distinction of the very worst character. It was a favourite principle with the close corporations, and when speaking of them, its bad effects were fully explained.

"Looking at the difficulties that stand in the way of legislative interference in the defining of medical rank, it might be thought the most advisable course for the legislature to abstain altogether from the attempt. Delicate, however, as is this subject, and there is not any connected with the profession that requires to be approached with so much caution and tenderness—I think that, to a certain extent, the legislature ought to interfere in defining its relations: not, certainly, by arbitrary rules, but, as has been suggested, by observing the wishes and interests of the public, and endeavouring, by mild regulations, to forward those wishes and interests.

"In the opinion of the writer, the legislature should go with the public, and recognise a senior and junior rank in the profession, and none other; at the same time throwing open the College of Physicians for the reception of the senior rank, and the College of Surgeons for the reception of the junior. The members of the two colleges would, in that case, constitute the profession at large. For, as the mere apothecaries are a forced growth, they should be allowed to die out with the existing generation.*

"But as these colleges are at present *quite distinct* and have *no connexion with each other*, a complete change in this respect would be necessary to place their members in the relation of senior and junior divisions of the same body. Some mode must be suggested by which the members of the junior would fittingly be converted into members of the senior rank. This conversion would not involve any difficulty, provided that all medical students were, in future, obliged to pass through a common course of professional elementary education. Indeed, it might arise almost as a direct sequence. With this intention, *all* students, who had passed their final examinations, should, at first, receive the title of surgeon, and be enrolled as members of the College of Surgeons; or, in other words, as members of the junior rank of practitioners; and, after remaining a certain number of years in this class, they should be eligible for admission into the College of Physicians, or senior rank.

"One of the greatest evils of the present system in the way of grades, is, that a very young man, who is a student of medicine to-day, at any of the universities, may, on the morrow, without possessing the least practical experience of the medical art, be changed into a 'learned physician,' or

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* What, we beg to ask, would senior or junior ranks be to the public, if there were not well educated apothecaries, or compounders of medicine? The author seems to adopt the old saying—all generals and no soldiers.

Doctor of Medicine, by obtaining merely the academic title of M.D. This title, or the piece of parchment on which it is inscribed, at once places a novice in a grade of the profession beyond which he cannot ascend, and elevates him, in pretension, to a level with the oldest, most experienced, and most honoured of the faculty. May it not be asked, in the name of common sense, if this young person be a fit and qualified companion for those who are supposed to have attained to the highest point of experience and skill? Besides lowering the respectability that should attach to the station of an experienced physician, this sudden translation of medical students into the first grade is very injurious to the interests of the public. As young physicians cannot find employment therein, the community is deprived of services that might have been exercised in a sphere less unsuited to their abilities—namely, a junior grade of practice; besides, after these young physicians shall have sacrificed twenty or thirty years of their lives in idleness, and in attempting to maintain the dignity of their false position, the public is then liable, by their appearance of age, to be deceived into the belief that they have medical experience also; the opportunity for acquiring which, by practice, has never been afforded them*.

"The divisions in the profession which have been suggested, would, if carried into effect, afford a remedy for this, as well as the other evils, relating to grades. It was stated that *all* medical students, who had passed their final examinations, were to be enrolled as members of the junior rank, or College of Surgeons. Amongst these would be included young M.D.'s. or medical graduates of the universities. The M.D.'s, however, should be entitled to some peculiar advantages on account of their being graduates. The difference between a graduate of the English or Irish universities, and a student who is not a graduate, lies in this; the graduate possesses, in his degree, a certificate that he has passed through a good general education, consisting of classics, mathematics, &c.; whereas the student who is not a graduate, although he may be equally well-informed, cannot exhibit a *certificate* of general education, of such esteemed value. Now, as it is highly proper to encourage students to go through the best, or, at least, what is considered to be the best course of general education, the writer proposes that graduates should be eligible for promotion, from the junior to the senior rank, at the expiration of half the time required of other members.

"The interests of both the public and the profession would be advanced if all young, medical men, including graduates, were to remain during several years in the junior rank; as, in this, the public would have their services in the capacity suited to their age and experience: and when the time for promotion arrived, the addition of such persons to the senior college, would be no discredit to that body.

"Although it is intended, under the projected system, that all members of the junior rank should, in a certain number of years, become *eligible* for admission into the senior, yet it is far from the wish of the writer, that *every member* should avail himself of this eligibility. Some obstruction must be thrown in the way, to render the senior rank somewhat select, but not exclusive; some check, the existence of which might perhaps lead many members of humble capacities, or those who had no public object to gratify by change, to willingly prefer spending their lives among the juniors. The only check, not open to insuperable objections, would be a money-check, and that might be brought to operate in the shape of fees for admission into the senior college. All fees, paid to this or any other account, to go, of course, to some legitimate object, such as the maintenance of both colleges, improvement of their libraries, museum, &c.

"The period during which young medical men should remain, as a general rule, in the junior rank, should probably be *at least ten years*; and if, at the end of this period, they claimed admission into the senior, the fees should perhaps *not be less* than *one hundred pounds*. This sum may appear at first sight too high, but other regulations, with regard to its exaction, to be detailed hereafter, will, I expect, show that it cannot be diminished with advantage. Ten years being the general period of qualification, the graduates of the universities would be considered qualified in half that time, or *five years*, and, as a further set-off for the expense and time spent in obtaining their degrees, or general certificates of education, as well as for the education itself, the fees of admission might be reduced, in respect to them, to *fifty pounds*.

"These checks are not intended for *all* the junior members, without exception; were it so, more than half their assumed value would be destroyed. *Professional merit*

"* In an Essay called 'Medical Economy,' published as far back as 1814, this and other evils of the existing system are pretty fully exposed. The name of the writer is not attached to this Essay, but it affords internal evidence of his sound sense and ability."

We are at a loss to perceive the exclusion of pure surgeons from this stricture, as it is known that still fewer of them succeed as operators, than junior physicians as consultants. Here, also, the author contradicts himself, in awarding, in a future section, superior advantages to Doctors in Medicine, on account of a better general education.

has its peculiar claims to consideration, and they are obviously much stronger than any that can originate in academic degrees or routine testimonials, whatever title they may confer. While, therefore, all other members would be obliged to remain during five or ten years in the junior rank, and while, in addition to that, they would be obliged to pay a considerable sum of money to gain admission into the senior, the man who had proved himself to be possessed of sterling professional ability should be declared eligible at all times, without further qualification as to time, and without any qualification as to money.

"The mode of admitting men of superior ability, without subordinate qualification, and without expense to the senior rank, or College of Physicians, should be provided for in the new constitution of that body. For that purpose, its members at large should have power to elect into the senior college any member of the junior, on the ground of his superior ability and acquirements. The election to take place within the senior college, after due notice, and to be decided by a majority of the members present.

"Under the new system there would be little, if any danger of the elective power being ever unfairly used, or diverted from its proper objects, to the introduction or support of exclusive notions. The large number of independent electors would guard against favouritism; and, as men of ability could obtain admission, at all events, by the *time* qualification, there would be no temptation for party-spirit to deprive such of the honours of election.

"As the elective mode of admission is suggested for the express purpose of forming a public recognition and reward of merit, no individual, of requisite ability, should resort to the *time* qualification, unless after every reasonable expectation of admission by *election* had failed. A strong mind, conscious of its own resources and deserts, should prefer labouring some additional years in the junior body, even after the time qualification was attained, to satisfy the scruples, just or otherwise, of his seniors, rather than not enter the senior college by its most honourable approaches.

"But merit need not be confined to this high and independent alternative alone. Any system of reform, to be efficient, must place the profession on a uniform basis throughout the three kingdoms, and this uniformity, were the writer's plan to be carried into effect, would supply the means of rewarding men of ability, despite the local prejudice which might, as a bare possibility exist against them. On this plan, a senior and junior college of the faculty would be constituted in Dublin and in Edinburgh, as well as in London. Not such colleges as now exist—the representatives of narrow, jealous, and selfish interests; but public bodies, engaged in open, generous, and exalted emulation with each other, for the benefit of the profession and the community. The members of these colleges should be free to practise in every part of the empire. For instance, should a member of either of the London colleges remove to Ireland, the presentation of his English credentials, at the senior or junior college in Dublin, should entitle him to be enrolled as a member there, according to his rank; acquiring in the new locality, by this simple form, *similar* rights and privileges as those members who had never left it. Regulations of the same kind should be established in all cases, with respect to members who changed their residence from the jurisdiction of one college to that of another. Moreover, the senior college, in any one place, should be competent to elect into its body the members of the junior in any other place, without change of residence on their part. In this last regulation would lie the remedy for local prejudices. A man of known ability, who had been unfairly passed over in the elections of the senior college of his own locality, could scarcely fail of getting himself elected into the senior of another locality, and when so elected, he could, by presentation of his foreign credentials, oblige his own college to receive him.

"The prominent features are now explained of a plan of reform, which, in the writer's opinion, is calculated to remove the defects or abuses of the present system. His aim has not been to do away with those ancient institutions, which, although they have been sadly mismanaged, were, in the first instance, wisely intended, and contained in their constitution some excellent principles that cannot be surpassed. The College of Physicians was designed by the Charter and Acts of Henry VIII., to comprehend, within itself, eminent practitioners in every department of medicine. By this charter, also, the existence of only one species of Examining Board was contemplated. In progress of time, when the number of medical men had greatly increased, the College of Surgeons was created. To the formation of a second college, provided a single Examining Board was to be continued, which might have been formed of deputies from both colleges, there could have been no rational objection: on the contrary, it might have been made to represent a junior section of the faculty, engaged in meritorious competition with the senior; but, unhappily, in the form which was given to the College of Surgeons, the principle of the original design was lost, while the bare outline was servilely copied. A *second* college, and a *second* examining board were created, in no manner related to, or connected with the first: but with interests distinct and adverse, and all sub-

sequent legislation has made the breach still wider between the different bodies of medical men.

"The writer has advocated the restoration of the ancient principle of medical legislation—to unite the two colleges and lop off their excrescences. With these changes perfected, and the formation of one examining board, by an equal number of deputies from each College, harmony will take the place of strife, and its original simplicity of constitution will be given to the profession, with improvements suitable to the circumstances of the present times. As no plan of renovation can succeed that is guided by exclusive views, the writer has recommended the adoption of certain qualifications, which cannot exclude any medical man from the senior rank who has a proper claim to be there; and, at the same time, checks are suggested that may prevent those whose claims are of a doubtful nature, from entering it without feeling that they are aggrieved, or looking upon their position in any other light than as a matter of their own choice. Were the money-check not something considerable, the vanity which is in every breast, to a greater or less extent, would defeat its object, and all members of the junior rank would join the senior, when possessed of the time qualification. Few medical men will be found ready to sacrifice fifty or one hundred ponnds to vanity alone, without the hope of a less unsubstantial gratification, and even if some should do so, the reformed College of Physicians will probably not differ much from other public bodies, including the most fastidious, in admitting within its walls a few members who might find it difficult to prove that they had intellectually an undoubted right to be there. It is of more importance to know that the gates of the College can never be closed against those who have earned any considerable degree of reputation. There are two kinds of reputation, and both are provided for. One, the reputation that a medical man obtains with the public, which is shown by his extensive practice; the other is the reputation he acquires with the profession by the evidence of scientific ability, as will appear in lectures and publications. In cases where both kinds of celebrity are not conjoined in the same individual, the possessor of the former may enter the College by the *time* qualification, as the fees consequent thereupon will be of no moment to a man in large practice; while the individual who is noted for ability by his professional brethren, should be admitted by *election*, to mark their high sense of his deserts. The introduction of this sort of relation or unobjectionable dependence between young men of talent and their seniors, would counteract in a great measure those mingled feelings of envy, contempt, and hatred, which occasionally arise to mar the respectability of the medical profession.

"After this explanatory outline of his plan of reform, the writer may be permitted to give a general summary of what its leading provisions would be*.

"It is proposed that mere apothecaries, and all other medical men not belonging to any of the regular Colleges of the faculty, who now are legally entitled to practise, shall have that privilege secured to them during their natural lives, to the same extent as they are at present entitled to exercise it.

"After the passing of the bill for the reform of the profession, no person, with the exception of those exonerated by the preceding clause, shall be allowed to practise in any department of the medical art, unless he be a member of one of the Royal Colleges of Physic or of Surgery in London, Edinburgh, or Dublin. These Colleges shall be required to furnish the civil authorities within their respective jurisdictions with lists of their members, printed annually, and it shall be the duty of the civil authorities—and not of the medical Colleges—to prosecute all persons who may attempt illegally to practise.

"The constitution of these Colleges shall be altered after the following manner:—

"All persons authorized to practise by the Colleges, whether known by the corporative title of 'Fellows,' 'Licentiates,' or 'Members,' shall be put in possession of equal rights and privileges; and, in future, they shall, in their corporate capacity, only be known by the name of members of their respective colleges; or by that and their official designation, as applied to any portion of them that may happen to be office-bearers in those colleges.

"The colleges of the faculty shall be governed by a president, vice-president, and council to be elected annually, by a majority of all such members of the body at large as may choose to attend and vote at their election.

"The colleges of surgery in the United Kingdom, and the colleges of physic in the United Kingdom, shall be declared junior and senior divisions of the same body.

"All surgeons who now belong to, or who may hereafter belong to, any of these

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"* As the door of promotion should be closed against no recognised order of medical men, a provision should be introduced, in case these changes were to be carried into effect, that persons who were *mere apothecaries* at the period of such an alteration being made in the law, should be admitted to examination for a diploma in surgery on the ground of their merits alone, and without reference to any regular course of education, as it would scarcely be reasonable to render it necessary for such persons, who might be advanced in years, to pass through the schools when they were moved by a proper ambition to endeavour to take a respectable stand in the profession.

colleges of *surgery*, and who are members of *ten* years' standing, may become members of any of the colleges of physic, on payment of the sum of 100*l.*; and all surgeons of *five* years' standing, who are also graduates of any of the British universities, may become members of any of the colleges of physic, on payment of 50*l.* Moreover, the members of any of the colleges of *physic* shall be competent to elect into their college, any member of a college of surgery on the ground of his respectability of character and professional merit, without qualification as to time, and free of all expense to the individual.

"The members of these colleges, or of any of them, shall be entitled to practise in any or in all the departments of the medical art; and they shall be entitled to practise in every part of the British dominions, with equal rights and privileges; provided only that when removing from the jurisdiction of one college to that of another, they shall get themselves enrolled as members of the college in the new locality, for which purpose the presentation of their credentials, obtained from their former college, shall be a sufficient warrant and authority.

"While the act of enrolment gives every privilege as to *practice*, it shall also give every *corporate* privilege of the college in which the enrolment has taken place, and such foreign member shall be entitled to vote at all elections, &c., within that college.

"The members of the different colleges shall be declared *equally eligible* to be elected as office-bearers of these colleges, or to be members of the general medical boards, *without respect to the particular college to which any such members may belong*, provided that, should a junior college in one locality elect, as one of its office-bearers, a member of a junior or of a senior college in another locality, this foreign member must be enrolled as a member of the college in which he is to take office, before he can enter upon its duties; and, provided also that a *senior* college in one locality should elect, as one of its office-bearers, a member of a junior college in the same or in another locality, this junior member, before he can enter upon the duties of his office, must be enrolled as a member of the senior college, either as an effect of election into the senior body or of the time, qualification, &c.

"When once admitted to practise, the colleges of faculty shall have no power in any case to prevent a member from continuing *to practise*, but the colleges respectively shall be competent to deprive any of their members of corporate rights, and render him ineligible to *all* corporate offices or to be elected or appointed as an examiner on the general medical boards, should any such member have behaved in a manner flagrantly disgraceful to his professional and public character; provided that the decision of expulsion from the corporation shall have been sanctioned by at least one-half of the members of the offended college who reside within the parliamentary boundaries of the capital in which the college is situated; and provided, further, that the decision be approved by his Majesty's Secretary of State for the Home Department.

"In the annual lists of their members to be published by the colleges, the names of the expelled members shall be inserted after all the others, and those names shall be placed under the head of 'Members Disfranchised.' The colleges shall be prohibited from using in their lists any stronger phrase than *disfranchised*, lest it should have the appearance or effect of persecution.

"The colleges to be empowered to make only such bye-laws as may be required for the arrangement of their *internal* affairs—as their museums, libraries, &c.; subject, however, to the approval of the Secretary of State.

"If the writer have not obscured his ideas by an attempt at something like legal phraseology, he will not have much to add to the preceding outline. Some doubts may be entertained of the colleges of physic, whose members would, at first, wholly consist of graduate physicians, proceeding to elect surgeons into their body in the way that the plan of reform contemplates. Athough there does not appear to be much ground, if any, for this apprehension, and as it would be unfair to suppose that the actions of men under a good system of government would at all resemble their actions under a bad system, still it might be well to guard against every contingency that might impede the working of the improved machinery. By way of precaution, the Secretary of State might be empowered to nominate any number of surgeons that should appear to him to be necessary, to be members of the colleges of physic, on the ground of their professional merit, and free of other qualification or expense. The exercise of this power should of course be withheld to the last extremity, when every hope of the senior colleges properly adjusting themselves must be abandoned.

"In regard to the subject of rank, there is yet another point that demands consideration: should surgeons, when admitted as members of the colleges of physic, receive any additional title? In France there is an order of medical men, called rather singularly, 'Doctors in *Surgery*.' Few things of French origin bear transplantation to English soil, and this fantastic Gallicism is probably not of the number. If any additional title is to be conferred on surgeons of long standing in the profession, it should be chiefly for the knowledge which they possess, or may fairly be supposed to possess, of physic, or the *art of prescribing*. To attain to excel-

lence in this part of the science is the highest effort of the medical mind.

"At present, titles are so injudiciously distributed that they divide the profession into sections resembling the exclusive castes of India. It may be said that all titles are now made to depend on the *preliminary course* of study which a medical man goes through *before* he enters upon the duties of his profession; in fact, the *ability or the peculiar fitness* of the individual *has nothing to do* with determining whether he shall bear during his life the title of 'Doctor of Medicine,' or of 'Surgeon;' even the *opinion of the individual himself* is scarcely taken on the subject, as, in the period of youth, his parents or accident will decide for him. This state of affairs calls imperatively for revision. No plan of medical reform can be considered complete, or even reasonable, that does not enable persons of long experience to take degrees in medicine, without sending them back in their old days to the universities, to undergo a course of study only fitted for youths. In plain words, this can be considered little else but enforcing an *apprenticeship* to the universities, and as much so as the Apothecaries' compulsory apprenticeship, although not of the same humiliating character. When it is a matter of choice with parents, a preliminary course of education at one of the universities should always be preferred, both on account of the presumed erudition and dignified standing of these institutions; and it is quite right and proper that the profession should hold out some reward to those who enter its ranks through the universities; but to leave a monopoly of titles in their hands, attended with so many vexatious and arbitrary provisions, is to derange the natural course of events, and to commit great injustice in regard to a large majority of medical men. Looking at its practical effects, can anything be more unjust or impolitic than that scores of young M.D.'s, or medical students, who have never had a *single* patient, should arrive daily from the universities with the highest professional title in their pockets, while a surgeon who has been ten or twenty years engaged in the practice of medicine, and who may consequently be one of the ablest of physicians, is obliged to remain during his life in an inferior grade, unless he abandon his practice and betake himself again to the studies of youth at one of the universities? Is not this equivalent to saying that the qualifications of the *head* are deserving of no titular distinction? In choosing his professional attendant, *no patient* would hesitate for a moment in making an election between these two sorts of practitioners—the experienced surgeon-physician, and the juvenile M.D.—and if the former be, as he undoubtedly is, immeasurably superior to the latter in every branch of practical knowledge, and more particularly *in the art of prescribing*, why is the title that should indicate the possession of that knowledge withheld?

"From the foregoing considerations, as well as others not less strong, the writer is of opinion that all surgeons admitted as members of the colleges of physic should be entitled by this admission to receive degrees in medicine; and it is also his opinion that the president and council of the senior colleges should be empowered to confer those degrees; or that it should be so ordered by parliament that the metropolitan universities would grant degrees to such persons on the recommendation of the president and council, and without further formality. In case the power of conferring degrees were given to the senior colleges of the faculty, its exercise should be limited to their own members, in order that it might not interfere with the proper privileges of the universities."

Few will agree with our author, that standing in the profession, and skill and experience of those who have neither received a moderate, general, or any kind of medical education, ought to entitle such practitioners to have honorary medical degrees conferred upon them. How many are there of this class who are grossly ignorant of every kind of education, who have been long in practice, and whose skill and experience, without scientific knowledge, are not worth a straw. Yet these are the experienced surgeon physicians. What a name, to be preferred to the juvenile M.D.! Now, our author ought to have known, that the most juvenile M.D. who has received a proper general and medical education, and who has just returned from the university, would form ten times a more correct view of the nature and treatment of a disease, than one of the unscientific surgeon physicians, who is ignorant of the tissues, functions, or accurate pathology of every part of the body, and whose experience is based on ignorance and dangerous error. Doubtless this class would like admission into the senior rank, but how could they advance the interests of science? Every one is familiar with the fact that young medical practitioners, physicians, or surgeons, notwithstanding the many difficulties they have to encounter in the commencement of their career, very speedily leave your surgeon physicians of experience, without science, far behind in the race, and soon throw them into the shade. Indeed, our author agrees with us

in opinion in his remarks on the necessity of improving the present course of medical education, and of rendering it the same in all parts of the empire, and these we shall fully notice in our next. His plan of reform appears to us imperfect, for the Apothecaries' Society must be changed or abolished; it may continue to qualify more apothecaries, or the department of pharmacy must be transferred to the College of Physicians. In fine, our author has also forgotten the obstetric department, which stands in such need of legal interference.

(*To be continued.*)

The London Medical
AND
Surgical Journal.
Saturday, June 18th, 1836.

INQUEST AT ST. THOMAS'S HOSPITAL—NECESSITY OF A RESIDENT HOSPITAL SURGEON—THE EVILS OF BUYING RESPONSIBLE SITUATIONS.

An inquest was held at St. Thomas's Hospital, on Saturday last, on the body of an aged female, who had met with an accident of which she died. An hospital pupil of very juvenile appearance came to give evidence on the case, when it appeared that the patient had been under the care of the house-surgeon and dressers from Saturday to the following Monday, and that none of the surgeons of the hospital had, during that time, given their opinion respecting the treatment to be employed. The jury, on hearing this statement, sent for the steward of the hospital, expressed their disapprobation of the proceeding, and said they thought the system ought to be changed. The hospital functionary stated that the opinion of the jury should be laid before the next committee held at the hospital. We are glad that the attention of the public, by the great circulation given to this occurrence by the press, has been called to this subject. We have repeatedly shewn the necessity of having resident surgeons at public hospitals—men who are competent to treat the most complicated accidents, and to be ready to meet every emergence. The office of house-surgeon is unquestionably the most responsible in the entire hospital-staff, and yet how, and by whom is it filled? Why, in St. Thomas's, and every other metropolitan hospital, with one solitary exception, by individuals whose only qualification for the office consists in being capable of paying a certain sum of money. Yes, the public have yet to learn, that in those noble institutions which do honour to our great city, that the most serious, the most dangerous cases are confided to the care of a young and inexperienced student, and that to the care of him, and of him alone, or of some of his juvenile companions, all accidents—all emergencies—are at the most critical moment consigned. We are no advocates for drawbacks upon the rising members of our profession—there is nothing in our whole course of public censorship which would warrant the assertion of such a belief—but we are advocates for offices being held by competent persons; we are advocates of the abolition of a mercenary system of payment for responsible situations; we are advocates of talent and industry; and, above all, we are advocates of the poor, who are the chief sufferers in these affairs. We say that it is a national disgrace—a mockery of the great and good purposes for which public hospitals were established, that such a system should be at work.

The hospital at which the inquest above alluded to was held, has ample funds; indeed its governors, not knowing what to do with the surplus money, are building it afresh—rearing a magnificent structure, at the expense of the sufferings of the poor. Why is not this superabundant supply of income devoted to a better purpose—to the payment of the medical officers of the institution, and for the appointment of a resident experienced surgeon, who will always be ready in cases of sudden necessity? Under such a regulation, what

a host of benefits would be conferred upon the profession and the poor! Were this plan put into operation, the wards of the hospitals would be thrown open, as they should be, to the medical student, and he would not have entailed upon him a heavy expense for following the physician or surgeon, in a hurried *run* over the cases of the various patients—the medical officers would not have to be paid, as they now shamelessly are, by the fees of pupils. As no money would be changing hands in these matters, merit would be likely to stand on its proper basis, and the offices of under house-surgeon, dresser, and clinical clerk, would be given to the most worthy. To the poor, the benefits would be equally great: they would be ensured attention and competent skill under all circumstances: they would not be exposed, in the moments of greatest danger, to the treatment of ignorant and inexperienced pupils.

It is a curious fact, and one which is a strong proof of the badness of the present system, that in all hospitals there is a resident *apothecary* for the purpose of attending the *medical* department of the hospital in the absence of the physicians, yet he is not consulted in cases of a surgical nature, in the absence of the surgeons; indeed, he is not *supposed* to know anything of such subjects. Now, we would inquire how it is that such an office is considered necessary, and a like one for the surgical department is useless? It requires no conjurer to tell us this. No one would pay money for being apothecary to an institution, therefore he is *paid* for fulfilling that situation. But, for the house-surgeoncy, under which appointment there is no necessity for the individual to have any of the hard work of the apothecary, such as attention to the state of the wards, the superintendance of the laboratory, &c., but only the cure of the patients, attendance to accidents, and such emergencies—the least important in the eyes of the directors of the hospital—he pays for his appointment. Why, the very fact of such payment shews what the system is—he pays for getting experience—he pays for being allowed the privilege of tampering with the lives and health of the poor patients so unjustly confided to his care. If this is not the case, why does he pay for taking upon himself so responsible an office? Is he required in any hospital in this metropolis, save the North London, to shew any qualification for the appointment? Is he examined as to his anatomy, his surgery, or any other department of his knowledge, if knowledge of any kind he has? No! the golden fee silences all questions, and admits him at once to be a full-blown house-surgeon. True it is, that in some hospitals the regulations require the candidate for the house-surgeoncy, to have been a twelve-months dresser, that is, he must have *paid* for holding such appointment—whether he fulfils it or not, or how he fills it, is of no importance at all—let him pay the *money* that is enough.

The jury on the inquest which has given rise to these remarks, acted with great judgment and decision; and the course they pursued, will, we trust, act beneficially in a quarter where such public criticism will produce a change, when that of another kind will not. It would be well, on all similar occasions, for the jury to inquire under whose care the deseased person had been while in the hospital; and if they find he or she has been consigned to the care of young and inexperienced pupils, why then, we hope, they will pass a vote of censure on the governors of the hospital who allow of such proceedings.

There is one other fact worthy of remark respecting this matter; the Committee of the North London Hospital, the last one established in the metropolis, and consequently the least able, as far as pecuniary matters are concerned, to strike out into a new path, have nobly dispensed with the odious tax on dresserships and house-surgeoncies — and

to the diligent, talented, and competent student, all offices of trust are awarded. It is true that in this institution the appointment of a resident surgeon has not yet taken place. But look at the immense advantage it is to the poor, to be under the care of a superior pupil, one who has obtained his appointment by merit alone, and has proved his competence by public test, to being subjected to the blundering treatment of some numskull, who has more money than wit. Poverty is no excuse in the generality of hospitals, nay, in any of them, for neglecting to appoint a resident surgeon: funds they have, and to spare for such a proceeding. It would not interfere with appointing superior pupils to offices of trust, for the resident surgeon might have a number of dressers under him, who would have the benefit of his counsel and assistance on all occasions. With such a guide, how valuable the dresserships at hospitals would be; for then, instead of being left to himself, or to the direction of a house-surgeon almost as young and inexperienced, he would be directed by a superior and competent officer.

Introduction of the Medical Witnesses Bill.

ON Wednesday morning, just as the Commons were about to adjourn, a Bill was presented, and read a first time, "to provide for the attendance and *remuneration* of medical witnesses at Coroners' Inquests." It is to be printed, and the second reading moved on Tuesday next.—*Morning Herald.*

Clinical Reports, with Reflections. By E. Geddings, M.D., Editor of the North American Archives of Medical and Surgical Science.

CASE III.—*Jaundice.—Inflammation and Pulpy Disorganization of the Mucous Membrane of the Stomach.*—The subject of this case was a young man, aged about 25, by trade a watch-maker, whose body we were requested by a medical friend to examine a few years ago. His habits had been intemperate, and the affection of which he died had been probably brought on by the immoderate use of ardent spirits. His principal symptoms had been, unconquerable irritability of stomach, and almost incessant vomiting, which nothing could control. He had also complained of pain in the hypochondriac and epigastric regions, and the whole skin and conjunctiva were of an intense yellow colour.

Autopsy.—The omentum was highly red and injected—the intestines presenting externally something of the same appearance. The mucous membrane of the stomach was intensely inflamed, and at several points was softened, and detached to the extent of an inch or more. It also exhibited several dark coloured spots, and the capillary veins were distended with black blood. The organ contained a small quantity of a brownish coloured fluid, mingled with minute fragments of disorganized mucous membrane. Some of the same kind of matter had been ejected at different times, by vomiting. Nothing was found either in the liver or gall ducts to account for the jaundice; the gland only being somewhat congested. The gall bladder was filled with thick viscid bile, having the aspect of pitch, but the ducts were perfectly pervious. The pancreas was considerably enlarged and indurated, but the spleen was healthy.

Remarks.—This case strongly corroborates a pathological principle which has received extensive sanction in modern times;—that there are many cases of jaundice in which the disease does not originate in the liver or its excretory appendages, but in the mucous membrane of the stomach and duodenum. To this fact, promulgated by Bichat, and confirmed by the observations of Broussais and Andral, we have had repeated occasion to advert in the course of our editorial labours, and it cannot be too often repeated. It was formerly too much the custom to consider jaundice merely as a consequence of mechanical obstruction of the excretory ducts of the liver, and to treat it by emetics, cathartics, resolvents, and antispasmodics, to emulge, as it has been expressed, the biliary ducts. If the disease proceed from an extension of irritation from the mucous membrane of the alimentary canal to the liver, along the lining membrane of the common duct, and the radicles which form it, the impropriety of this practice is too glaring to require comment; and, that it does originate in this manner, in some cases at least, is fully proved by this case, and many others of a similar character which have been reported. Here the mucous membrane of the stomach was inflamed even to the extent of disorganization, yet there was no perceptible organic disease of the liver or any of its appendages. In such a case, emetics and cathartics could scarcely fail to prove mischievous; and antispasmodics and resolvents would be altogether inadequate to afford relief. The jaundice was a consequence of acute gastritis, excited by intemperance, and could only be successfully combatted by such means as would

be calculated to subdue the primary affection.

While on this subject, we will take occasion to remark, that we have seen several cases of jaundice attended with much febrile disturbance, and strong evidences of gastro-enteric inflammation, in which the patient became speedily affected with a profound, comatose state, from which nothing could rouse him. Associated with the febrile symptoms, there was great thirst, epigastric tenderness, constipated bowels, nausea, and vomiting; the tongue at first being red and contracted, but soon becoming dry, brown, and scabrous, and assuming all those characters which it presents in typhoid fever. With this change of the tongue, the comatose symptoms generally set in, attended with muscular twitchings, and other indications of impaired or disturbed innervation. We have recently seen allusion made to this form of disease in several of the journals, with reference to its extremely fatal character. It seems to be an intense gastro-enteritis in its inceptive period, speedily involving the nervous system, in the manner in which that system becomes affected in typhoid fever, and is, probably, a variety of that disease. It has been generally remarked by those who have observed it, that it is almost constantly fatal, and every case we have seen terminated in that manner. We have sometimes seen yellow fever, presenting a similar train of symptoms; and Dr. Stokes has given an excellent description of an epidemic form of gastro-duodenitis, which prevailed with great fatality in Dublin, the leading characters of which correspond very accurately with the disease to which we allude. He remarks, that the first sixteen cases which fell under the observation of himself, and his colleague, Dr. Graves, in the Meath Hospital, terminated fatally.

Case IV. *Hæmatemesis.*—Charles Chester, seaman, aged 31, was admitted into the Baltimore Infirmary, 17th January, 1835. He has just returned from Canton, via Montevideo, in both of which places he was admitted into hospital for the treatment of syphilis, but experienced no material relief. He is now affected with the symptoms of that disease. The attending physician being absent, no remedies were prescribed for him. Two o'clock, P. M., vomited nearly a basin full of dark coloured blood, mixed with clots, after taking a bowl of broth. Pulse rather soft and laboured; tongue slightly furred; pain on pressure in the left hypochondriac and in the epigastric region; breathing difficult. Blood-letting from the arm.—℞. Opii. gr. ij; Submuriat. hyd. gr. v.—Blister to the left hypochondriac, and afterwards to the epigastric region.—Effervescent draught.

18th. No return of vomiting; pulse fuller and stronger; pain in the epigastric and hypochondriac regions alleviated; bowels inactive; laxative enemata with tinct. opii. gutt. lx; which in the course of half an hour brought away a copious dark fœtid stool, resembling the washings of a gun, and mixed with large clots of blood. The enema was repeated at 9 o'clock, P. M.

19th. Much better; pulse full and soft; no pain.—Boiled milk, with rice for diet. No medicine.

20th. Considerable fever; respiration difficult; bowels inactive; venesection.—Laxative enema, which brought away light coloured stools, nearly natural.

21st. Bowels still inactive; difficulty of breathing abated; Obiern's rectum tube introduced without effect.—10 P. M., great tympanites of the abdomen.—Enema of common salt with ol. terebinth. without benefit. Two enemata of common salt were afterwards administered—the first containing tinct. assafœtida; the second, ol. terebinth.

22nd. Same condition—enema repeated.

23rd. Bowels inactive; abdomen tympanitic—Ol. ricini, ℥ ilj; Ol. menthæ, gtt. iij. 9 P. M., Ol. ricini, ℥ ij; Ol. menth. gtt. vj; Tinct. opii. ℥ i.

24th. Same condition. ℞. Pil. hyd., ℥ ss. ft.; Pil. xxv. Sumat. i ter in die.—Unguent. hydrarg. fort. to be rubbed on the abdomen.

25th. Bowels less constipated; tympanites continues—continue as yesterday.

26th. Same condition. Ointment omitted; continue pills.

27th. Vomited and passed a large quantity of blood per anum; abdomen distended and painful to the touch: pulse tense, quick and small. — Venesection — Pulv. Doveri, gr. xij.

28th. Vomiting and passage of blood per anum continue; abdomen softer; pulse quick and tense. ℞. Sulph. alum., ℥ ss, divid. in chart. vj; one to be taken every two hours, if the vomiting continues.

29th. Does not pass blood; pulse tense and quick; tongue red upon the edges and furred; breath very offensive; abdomen swollen, and the existence of fluctuation renders it probable that it contains water; blister to the epigastrium; to be bled; to take the powders if the vomiting continues. 10 o'clock, much worse; pulse does not warrant blood-letting; seems to be sinking rapidly.

30th. Extremities cold; pulse very quick and small; odour offensive; seems to be insensible, and has not spoken for several hours; spontaneous evacuations of large quantities of blood; slight vomiting.

31st. Died this morning at eight o'clock.

[The *Autopsy* in our next.]

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 22. SATURDAY, JUNE 25. Vol. I.—(1836).

PATHOLOGICAL OBSERVATIONS ON THE DISEASES OF THE PLACENTA.

Part I.—Congestion and Inflammation.

BY JAMES Y. SIMPSON, M.D.,
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(*Read before the Royal Medical Society, November* 20, 1835.)

The diseases of the placenta form a subject of inquiry which appears to have hitherto attracted, especially from British pathologists and accoucheurs, a very incompetent share of attention. In the works of various systematic medical and obstetrical authors of the last and of the preceding century, as in those of Bonet, Ruysch, Mauriceau, Morgagni, and Wrisberg, notices of some individual cases and forms of placental disease are occasionally to be met with—and more lately, several of the morbid affections of this organ have been investigated with greater or less attention, by different continental pathologists—as by MM. Murat*, Desmoreau†, Brachet‡, and Cruveilhier§, in France, and by Professors Stein||, D'Outrepont¶, and Wilde**, in Germany. I am not aware, however, that the medical literature of England contains any account of the various morbid states to which the placenta is liable, besides what is to be found in the casual observations and in the details of isolated and incidental cases recorded in the obstetrical writings of Smellie, Denman, Hamilton, Burns, Ramsbotham, Ingleby, Montgomery, Granville, and others*. It is not, therefore, without hesitation, that I venture to lay before the Society the following general remarks upon some of the principal forms of placental disease, as derived, partly from the data furnished by others, and partly from the observations which I have myself had an opportunity of making upon a few recent, and a very considerable number of preserved specimens of morbid placentæ, contained in the different pathological museums of this country. At the same time, I may, I hope, be allowed to plead in excuse for the many imperfections of the following essay, the comparative novelty of the subject of which it treats, the paucity of materials still existing with regard to it, and the difficulty of collecting these materials from the numerous different sources over which they are scattered.

The human placenta is an organ which serves as a mere temporary medium of communication between the mother and fœtus, and passes through all its different stages of formation, growth, and ultimate expulsion, in the short space of seven or eight months, yet during this comparatively brief existence, it appears to be liable to a considerable number and diversity of morbid conditions, more frequent, I believe, in their occurrence and more important in their effects, than seems to be generally suspected. Nor are the morbid conditions and lesions of this

* Dictionnaire des Sciences Medicales, tome xlii, p. 543, sqq. 1820.

† Dictionnaire de Medecine, tome xv, p. 9. 1826.

‡ Journal Generale de Medecine, tome p. 10. sqq.. 1828.

§ Anatomie Pathologique, Livrais. i, vi, d xvi. 1829-34.

|| Gemeinsame Deutsche Zeitschrift für burtskunde, Band v, Heft. 2, and Kleirt's Allgemeines Repertorium, v. Jahrng. 1. Heft. s. 35, 36. 1830.

¶ Gemeins. Deutsche Zeitschrift für Get. Bd. v. Heft. 4, and Kleinert's Allgem. pertor. iv, und v. Jahrg. Suppl. i. Abtheil. 7. 1830.

** Medizinsche Zeitung, Jahr. 11. Ber- 1832.

* I ought perhaps to state, as exceptions to this general remark, a brief analysis of the symptoms of different diseases of the placenta from Professor Wilde's essay, inserted in p. 573 of the 6th volume of Dr. Ryan's London Medical and Surgical Journal, as well as a short notice of the subject, in Dr. Ryan's own lectures on the Physical Education and Diseases of Infants, published in the same Journal, vol. vi, p. 140—142.

organ matters of pathological curiosity and interest only; a more accurate knowledge of their various phenomena appears to promise results of no inconsiderable consequence to practical medicine. The peculiarities of the placental economy of the human female, and the nature of the relations which exist between it and the uterus, constitute (particularly when these relations happen to be deranged by placental or uterine disease,) one of the great sources of danger and fatality in human parturition. Numerous facts also seem fully to prove, that different morbid actions and lesions of the placenta exert a marked and powerful influence upon the health and well-being of the mother during pregnancy—and, above all, the study of these lesions promises to throw an almost entirely new light upon the abnormities of development, the diseases and death of the fœtus in utero. Most, indeed, of the latest inquiries instituted upon these points, appear to me to afford satisfactory evidence, that certain particular varieties of malformation of the fœtus are attributable, in some instances at least, to morbid conditions of the placenta, or of the membranes covering the internal surface of the placenta, as their immediate exciting cause*; that the not unfrequent occurrence of the death of the fœtus in the earlier as well as in the latter states of pregnancy is almost always the result of a diseased state or states of this organ, and that the act of abortion, occasionally the indirect cause of that death, but much more commonly its indirect effect, is in very many instances capable of being traced to the same source. It does not seem, therefore, irrational to hope, that by a more careful investigation into the nature of the different diseased states to which the placenta is liable, and by a more diligent and rigorous observation of the symptoms that precede and accompany these states, and of the causes by which they are produced, we may be gradually led to a greater degree of facility and accuracy in their detection, and to the adoption of better established principles for their prevention and treatment—and that in this way may be promoted in no inconsiderable degree, those great and ultimate objects of all medical study—the preservation of human life, and the alleviation of human suffering.

The two most frequent and important diseased states to which the placenta is liable, are certainly sanguineous congestion and inflammation, with their various consequences. The placentary parenchyma, and the membranes investing the organ, are liable, as I shall afterwards endeavour to point out, to other morbid states—to hypertrophy and atrophy, to softening and induration, to cartilaginous and calcareous degeneration and the secretion or formation of other morbid products and tissues, to an anormal cystoid or hydatiform structure, and to various forms of malformation and displacement, but, in a practical point of view, most of these lesions are comparatively less important than congestion and inflammation, and the effects which these diseased conditions produce. It is to congestion and inflammation of the placenta, therefore, that I would wish first and principally to direct the attention of the Society.

I.—Congestion of the Placenta.—By the term, congestion of the placenta, I mean to express the existence of a greater than usual quantity of blood in the vessels of that organ, taking place rapidly or more slowly, in some cases rapidly or more slowly terminating in resolution, and in others leading to the infiltration or extravasation of blood in greater or less quantity or quantities, into the substance of the placenta, upon its uterine, or fœtal surfaces, or between the membranes of the ovum. The excess of blood in the vessels of the placenta, constituting congestion of that organ, may, there is every reason to believe, have its seat primitively and separately, either in the placental ramifications of the fœtal umbilical arteries and veins, or perhaps more frequently in the vascular prolongations, which seem to be extended from the uterine vessels of the mother into the substance of this viscus*; but a state of congestion in

* The varieties of malformation to which I here more especially allude consist, as will appear in the sequel, of certain kinds of malformation resulting from a morbid adhesion between the embryo and the membranes covering the internal surface of the placenta. It is not improbable, I conceive, that other kinds of malformation may yet be traced to a diseased state of the appendages of the ovum, as their first or more immediate exciting cause, but the present state of our knowledge upon this subject is certainly not by any means such as can entitle us to assent to the following comprehensive proposition, deduced by M. Serres as the result of his able investigations into the origin of monstrosities with a reference to the theory of the primitive duality of all the organs of the body, and laid down by him in his late interesting work, "Recherches d'Anatomie Transcendante," &c. "En dernière analyse, la cause la plus generale des irregularités des developpement et de la monstruosité reside en premier lieu dans la dualité primitive des placenta, et en second lieu dans la separation, ou la coalescence de ces deux organes."—p. 178.

* In this and in other parts of the present essay, the language that I have employed, and some of the pathological explanations that I have offered, will be found to accord with the belief, that the description of the utero-placental vessels and circulation originally given by the Hunters is funda-

one of these systems of vessels, the fœtal or the maternal, scarcely perhaps ever continues, for any considerable period of time, without giving rise to a similar state in the other.

Anatomical Characters of Placental Congestion.—The anatomical characters of simple congestion of the placenta may, I believe, be sufficiently illustrated by a reference to the engorged and dark coloured condition which this organ presents, in cases in which the head of the child has happened to be long and dangerously impacted in the passages of the pelvis. The appearances which the placenta exhibits on its being expelled after such cases, and more particularly if the impaction has been so great as to prove fatal to the child, are well known to every practical accoucheur. The external surface of the organ is of a more or less deep violet, and sometimes almost livid colour, its internal structure when torn or divided by the scalpel, presents a deep purple hue, its vessels are everywhere loaded and distended with dark coloured blood, the organ appears enlarged, and its substance feels heavier and more solid than natural.

In cases of abortion occurring as a consequence of physical injuries of the uterine region, or of any of those causes which give rise to it, by producing a strong determination of blood to the vessels of the uterus, the same congested and engorged state of the placenta, as that to which I have just now alluded, is generally met with, and in these instances also the blood is not unfrequently found effused in more or fewer points, from rupture of the lacerated or

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mentally correct, and that not only small tortuous blood-vessels (arterial branches) pass across from the inner surface of the uterus into the placenta, but that venous branches also, or hollow canals, at least, continuous with the venous sinuses of the uterus, run through the deciduous membrane, covering the uterine surface of the placenta. From what I have myself observed in recent placentæ, and in a personal examination of Dr. William Hunter's preparations in the Museum at Glasgow, I am inclined to believe that Dr. Lee, and with him M. Velpeau and others, have deceived themselves in considering the placental decidua as an imperforated membrane, by not attending sufficiently to the circumstance, that the utero-placental veins pass through the deciduous covering of the placenta in a very oblique direction, and that the coats of these venous canals are extremely thin and slender, and composed of a tissue that is endowed with very little elasticity, and resembles in colour and appearance the proper tissue of the decidua. Hence it happens, that when we look upon the outer or convex surface of the placenta after it has been separated from the uterus, the deciduous covering of the organ presents the appearance of a perfectly continuous membrane, having no visible foramina or hollow canals in it, owing to the inelastic parietes of its venous canals having then completely collapsed together, and to the torn orifices of these canals, being thus concealed by their sides, more or less fully overlapping one another, in consequence of the oblique course of the vessels themselves. These sources of fallacy in ascertaining the proper vascular structure of the placental decidua are always rendered greater, if, instead of being kept of its natural convex form externally, the placenta be placed by us for examination upon a flat surface, as by this means all the parts on the uterine side of the organ are necessarily more closely pressed together. Drs. Sharpey and Allen Thomson, in examining during last summer a gravid uterus taken from the body of a woman who had poisoned herself between the fourth and fifth month of pregnancy. were able to trace in the most satisfactory manner both utero-placental arteries and veins passing through the deciduous membrane of the placenta. They convinced themselves of the free communication of the venous canals which they found in the placental decidua, with the proper uterine veins or sinuses, by tracing a continuity of tube between these two sets of vessels, in carefully dissecting the venous canals or cavities of the decidua, both from the external or maternal portion of the substance of the placenta towards the uterus, and from the sinuses of the uterus towards the placenta, as well as by blowing air through them in these different directions while the preparation was immersed in water. These gentlemen discovered also small tortuous spiral arteries, less in diameter than the utero-placental arteries, but similar in form, passing from the inner surface of the uterus into the decidua vera, covering those parts of the uterus at which the placenta was not attached. They further found a network of considerable sized veins ramifying through the substance of this uterine decidua. The anastomosis of these deciduous venous canals with one another, as well as with the cavities of the veins running on the edge, at least of the placental decidua, and with the mouths of small venous orifices opening on the internal surface of the uterus, fully appeared on inflating them in different parts of their course. It is to be hoped that the results of this interesting observation, with all its necessary details, will soon be laid before the medical public. In addition I may state, that Mr. Owen, of London, has been lately successful in verifying, by the careful dissection of several gravid uteri, the accuracy of the anatomical description of the utero-placental circulation left us by the Hunters.

distended placental vessels, constituting the apoplexy of the placenta of M. Cruveilhier, who, along with Laennec, Andral, and other Parisian pathologists, has employed, of late years, this term to designate the existence of an effusion of blood into the tissue of the lungs, and other organs of the body, while the word literally and originally signifies one of the more obvious external phenomena or symptoms only, which such an effusion of blood generally produces, when it happens to occur within the encephalon*.

The blood effused in placentary congestion and hæmorrhage occurring during pregnancy may occupy different anatomical situations. In numerous instances it is found on the external surface of the placenta, or between it and the uterus, occasionally in very large quantity; in other instances the extravasated blood is situated towards the fœtal surface of the organ, or insinuated between the membranes, or, as very often happens, between the uterus and decidua; and in others again, it is seen effused into the substance or proper structure of the placenta, as remarked by Deneux† and Baudelocque‡, and, as I have myself had an opportunity of observing, in a considerable number of specimens. In cases in which abortion occurs in the earlier periods of pregnancy, the extravasated blood is frequently found diffused over the whole or nearly the whole surface of the chorion, and between it and the amnion, in the form either of a continuous layer or layers of coagulum, or of more or less isolated nodules; and in two instances I have seen it occupying these situations, at the same time that it was both effused into the cavity of the amnios itself, and extravasated in the form of roundish masses among the rudimentary structure of the placenta. The immediate anatomical seat of sanguineous effusions situated in the substance of the placenta itself is probably in general in cavities formed in a greater or less degree by mechanical rupture of the tissues of the organ, but the occasional similarity of the form of the coagula, to the form presented by portions of wax injections thrown into the placenta by the utero-placental arteries or veins, would seem to shew that in some cases the coagula are more or less completely circumscribed within the maternal cells of the placenta, supposing the description of these cells as given by the Hunters, Meckel, and Hildenbrand, to be correct. M. Deneux states, that, in the case already referred to, he found the effused blood partly situated in the interstices between the lobules or cotyledons, a circumstance which I have not had occasion to observe in any of the specimens of the disease that I have had an opportunity of examining.

The particular vessel or set of vessels which furnish the blood effused in placentary congestion, terminating in sanguineous extravasation, is liable to differ in different cases; but from the difficulty of accurately tracing the source of the hæmorrhage in individual cases of the disease, I have little or no precise information to offer upon this point. When the hæmorrhage takes place in the earlier weeks of pregnancy between the chorion and decidua, the blood probably escapes either from the new and tender decidual or umbilical vessels of the rudimentary placenta, or from both of these sets of vessels at the same time. When the blood is effused into the substance of the placenta, it is generally altogether impossible to trace the vessel or vessels from which it proceeds, and indeed the extravasation seems in many cases to occur at several different points at the same time. In a case detailed by MM. Grisolle and Caseaux, in the Revue Medicale for 1833*, and in which coagula of blood half an inch in thickness were situated towards the fœtal surface of the placenta, some of the secondary divisions of the umbilical vessels would seem to have been ruptured. Occasionally the hæmorrhage appears to proceed from a rupture more or less extensive of the vascular parenchymatous substance of the placenta. Thus Mr. Wildsmith† mentions a case where, on inspecting the body of a woman who died during pregnancy, there was discovered a large coagulum at the anterior portion of the fun-

* Professor Thomson, in his lectures, has long been in the habit of employing the old term ecchymosis instead of apoplexy, to designate all morbid extravasations of blood into the tissues or structure of the internal organs of the body. This use of the term ecchymosis in medical pathology seems to be preferable to that of apoplexy, inasmuch as it is consonant both with the original derivation of the word, and with the signification in which it has long been employed by surgical writers. Dr. Rush was, I believe, the first who in modern times set the example of applying the term apoplexy in the somewhat perverted signification to which I have above alluded. In his essay on Pulmonary Consumption, after stating different points of resemblance between the effusion of blood in the brain, and the effusion of blood in the lungs, he remarks, "From this great analogy between the remote and proximate causes of the two diseases, I have taken the liberty to call them both by the name of apoplexy."—(Medical Inquiries and Observations, vol. ii, p. 53.)

† Journal Generale de Medecine, tome lxviii, p. 339.

‡ Recueil Periodique de la Soc. de Medecine, tome iii, p. 23.

* See also the Dublin Journal of Med. and Chem. Science, vol. v, p. 154.

† North of England Medical and Surgcial Journal, vol. i, p. 446.

dus uteri, weighing eighteen ounces, with a rupture of the placenta, two and a half inches in length. The blood in some instances, though originally poured out by vessels traversing the substance of the placenta, afterwards bursts through the tissues of that organ, and reaches its decidual or uterine surface, but in very many also of those cases in which the effused fluid occupies this latter situation, it may be traced to a direct rupture of the utero-placental vessels themselves.

The quantity of blood effused internally in placentary hæmorrhage occurring during pregnancy is generally small, in most cases not exceeding a few drachms; but it is occasionally also, particularly when the blood is extravasated from the utero-placental vessels between the placenta and uterus in the latter stages of gestation, so great as to endanger or destroy the life of the mother. In some cases where the hæmorrhage has thus proved fatal, the extravasated blood has been found to be wholly collected between the uterus and central portion of the placenta, and to be completely confined within this circumscribed situation, by the edges of the placenta preserving, around the whole circumference of the organ, their natural attachment to the internal uterine surface. Albinus has recorded a fatal hæmorrhage of this description in his Annotationes Academicæ*; and Delaforterie† and Saumarez‡ have detailed simila cases. The quantity of blood effused between the placenta and uterus in the kind of circumscribed cavity above alluded to, is stated in M. Delaforterie's case to have measured three French chopins, and in Mr. Saumarez's case it amounted to a pint and a half. In these, and in similar instances of fatal placental or or utero-placental hæmorrhage occurring during gestation, death can scarcely be considered as an effect merely of the loss of the absolute quantity of blood effused. The attendant strong feeling of sickness and syncope, the paleness and coldness of the surface of the body, the state of the pulse, &c., would seem rather to indicate that the extravasated blood, by the sudden uterine distension to which it gives rise, or from other causes, produces a fatal depression of the action of the heart, similar to that which results from blows upon the epigastrium and severe injuries of the abdomen, and which we see supervening more slowly in cases of extensive peritonitis running on to a fatal termination.

The size or volume of the individual coagula or effusions of blood found in the substance of the placenta is liable to great variations. In some instances they are extremely small, not equalling a vetch seed in size; and again I find in my notes two cases mentioned, in one of which a single coagulum as large as a walnut is described; and in the other case, another coagulum is alluded to as equal in volume to a pigeon's egg. Wrisberg appears to have met with a placental sanguineous coagulum of a much larger size than either of these two*.

When in placentary hæmorrhage or apoplexy, the blood is extravasated into the substance of the placenta itself, it most generally appears, as far as I have myself observed, under the form of roundish coagula, often accurately circumscribed; but in other cases, the form and outline of these coagula are altogether irregular, and the transition between the sound and diseased portions of placenta not very accurately marked. In some instances, one or two coagula only are observed, or the extravasation is confined to one or two lobes or cotyledons only; but generally a considerable number of coagula are seen scattered throughout different parts of the same placenta, the sanguineous extravasation having occurred at several points, either simultaneously or successively. In one extreme case of this kind which I have met with, the section of a placenta of about the fourth month, presented throughout its whole structure only one agglomerated mass of distinct and separate roundish coagula, and the organ was increased so greatly in thickness by these interstitial effusions as to infringe very considerably upon the cavity of the amnion.

When hæmorrhagic effusions take place towards the fœtal surface of the placenta, or in the earlier stages of pregnancy, between the decidua and chorion, the coagula

* Parturienti placenta abscesserat, multo sanguine coagulato interjecto inter eam et uterum. Tota autem marginis circumferentia nihil quicquam abscesserat, eoque ne sanguis proflueret, prohibebatur. Quod quum non intelligeretur, mulierem interemit.—Annotat. Academ. Lib. i, Cap. x, p. 36. This placenta with the whole membranes of the ovum is represented in this authors's Uteri Mulieris Gravidae Tabulae, Tab. vi.

† Journal Generale de Medicine, tome xxix, p. 384.

‡ New Medical and Physical Journal, vol. vi, p. 535.

* In describing the placenta of an aborted ovum, Wrisberg remarks, "Media ejus pars exhibet magnum ovatae figurae corpus, ultra septem lineas supra reliquam eminens superficiem, coloris fusci nigri, instar coagulati sanguinis, omnem placentae latitudinem, 3¼ poll. aequantem occupat, cum tota placentae longitudo 5¾ poll. sit. Maxima prominentis hujus corporis latitudo 2 poll. 6 lin. invenitur. In ipso eminentiae centro, funis inseritur umbilicalis, cujus sanguifera vasa in magnos dividuntur ramos, &c."—Descriptio Anatomica Embryonis.—Sandifort's Thesaurus Dissertationum, tome iii, p. 227.

of extravasated blood very frequently protrude these membranes before them, towards the cavity of the amnion, and appear in the form of projecting eminences or elevations on the amniotic surface. These eminences vary greatly in number and extent in different cases. In some instances almost every part of the amniotic cavity is crowded with them, in others, they are seen only in that part which corresponds to the placenta. They vary from the size of a very small pea to that of a hazel nut, or larger. Occasionally, they form very slight projections only above the general level of the surface of the amnion; generally, they appear as rounded irregularly hemispherical eminences; and again, I have seen them standing out from the walls of the amniotic cavity of an elongated nipple-like shape, and nearly as large as the first joint of the thumb. In several cases I have seen the umbilical cord, at its insertion into the placenta, at the same time greatly distended with coagulated blood, for a distance of six or eight lines, giving an appearance similar to that represented in two aborted ova figured by Albinus* and Sandifort†.

The substance of the placenta more immediately surrounding recent hæmorrhagic extravasations is occasionally darker red than natural, from imbibition or infiltration of the effused blood into the neighbouring portions of tissue, and sometimes the surrounding placentary structure is studded with a number of dark spots or points, probably originating in partial sanguineous extravasations, or in blood stagnated and coagulated in the cavities of some obstructed vessels.

(*To be continued.*)

* Academ. Annotat. tom. i, tab. v, fig. 5.

† Observationes Anatomico-Pathologicae, lib. iii, tab. viii, fig. 4.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXI.

Generation of Animals.

In the preceding lecture I described the function of reproduction in the lowest section of organized beings, namely, in plants, and now ascend to the first class in zoology, which many eminent naturalists have arranged with the former, but which recent and more accurate researches have determined to belong to the animal kingdom. In ascending from the lowest to the highest class in the zoological scale, we shall more clearly perceive the more perfect conservation of animals, and the varied species of their reproduction, all of which elucidate the mysterious function of generation in the human species. This was the plan pursued by all naturalists and physiologists, by Hippocrates, Aristotle, Harvey, Spallanzani, Cuvier, Mason Good, and a host of others.

Generation of Animals.—What a vast, sublime, and at the same time delightful field, is the study of the generative functions in this class of living beings, at the head of which stands the human species! What curious and varied phenomena, all tending to the same result! What an incalculable profusion of different reproductive processes nature employs for the propagation of the numerous species which she calls to life! And, nevertheless, what unity and what analogy of propagative actions among all the individuals of the same class, from the bramble heath on which we tread, to that proud being who is so eminently qualified to be prince of animals, and king of the universe.

Though the study of the generation of animals presents to the mind of the

observer a host of subjects capable of vividly exciting the curiosity, it still furnishes a host of gifts of the deepest interest, whether we consider the advantages of the beings under our empire, whether to serve our comprehension and explication of the numerous phenomena of human generation, on the mechanism of which nature would appear, at first view, to have thrown an impenetrable veil.

A complete history of the generation of animals, and especially of the infinity of modifications in this mysterious process of perpetuating each species, would be an immense undertaking, to which the entire life of one man would be insufficient, and which is perhaps beyond the comprehension of his natural faculties. What an infinite number of organizations and different species among the millions of living beings which the earth receives on its surface, which fly in the air, and which swim in the unfathomable ocean! What an immense number of others whose organization, and consequently whose mode of reproduction escape the eye, even assisted by the most powerful microscopes!

How numerous are the springs, says Buffon, the powers, the machines, and movements included in that small portion of matter which composes the body of an animal! What relations, harmony, and correspondence between the parts! How many combinations, arrangements, causes, effects, and principles, which concur to the same effect, and which we only know by the results, so difficult to be understood; and they have not ceased to be marvellous, but on account of our not reflecting upon them. But, however admirable does this work appear to us, it is not in the individual that the great wonder exists; it is in the succession, renovation, and duration of the species, that nature appears altogether inconceivable. The number of the species of animals is much greater than of plants, which amounts, it is said, to 56,000. There is, perhaps, a greater number of insects, most of which escape our observation, than there is of plants visible on the surface of the earth!

It is, therefore, beyond our powers to enter into all the details which so vast a subject comprehends, and we must necessarily confine ourselves in this dissertation to the general opinions, which are the most curious and important, on the procreation of animals. I shall, nevertheless, enter into some details concerning a certain number of species; but they must be confined to the most remarkable.

I shall follow the classification which is most generally known and adopted in these times, in the exposition of facts relative to generation:—1, *zoophytes*, 2, *insects*, 3, *crustacea*, 4, *worms*, 5, *mollusca*, 6, *fishes*, 7, *reptiles*, and 8, *mammiferæ*—at the summit of which stands the human species.

1. *Zoophytes.*—These are a species of animals in which organization, sensibility, and contractility are so very little developed, that they have been considered as occupying a middle place between the vegetable and animal kingdom. Such are the microscopic infusoria, which are sometimes seen in millions in a drop of water, or on a diseased tooth, by the aid of a solar microscope—sponges, corals, polypi, intestinal worms, hydatids, &c. &c.

Natural history, as yet, does not furnish satisfactory information on the mode of the procreation of this obscure class of animals. Some are hermaphrodite, as the sponges, and propagate like flowers; others, such as the polypi, are propagated by parts or prolongations, as a great number of plants, which, when cut in slips or parts, form new beings; and, finally, there are others which are reproduced by eggs, such as intestinal worms, hydatids, &c.

The eggs of these animals, and especially of hydatids and the aqueous worms, are so minute, that they are said to pass from one individual to another in the process of generation, to circulate in the blood, and be deposited

in the substance of organs, in which they are capable of germinating and transforming themselves into living animals of greater or less size, which are more or less injurious to health. These parasitic animals are found in the stomach, bowels, liver, spleen, lungs, brain, bones, &c. &c., in which they occasion fatal diseases. Living hydatids have been found in all tissues in the body, and also in the brain, liver, and other organs, in sheep. A late writer, Mr. Buchanan, describes worms which he found in the blood; and the fact has been recorded, that worms exist in the bowels of the fœtus in utero. Now, when we consider the envelopment of the fœtus in membranes and the womb, as well as the utter impossibility of the worms passing into the stomach, we must conclude that they must have been transmitted by generation. Moreover, the existence of hydatids in the substance of the liver, brain, bone, &c., cannot be accounted for on any other principle, except the generation of such animals in such tissues. This conclusion is not refuted by the host of evidence brought forward by the learned Dr. Good, in his Study of Medicine, in favour of the ingestion of the ova or eggs of worms from without, in various aliments and drinks. Dr. Tiedemann accounts for parasitic animals by spontaneous generation.

Green fruits and herbs favour, on account of their humidity, the development of pasasitic animals. It is for this reason that we so often observe worms, the lumbrici, ascarides, and tænia, in persons who take too much green fruits, more particularly in children. Hence the medical proscription of unripe fruits.

2. *Insects.*—Insects are considered so insignificant by most persons, that few, unless naturalists, have sufficiently observed the phenomena they present. In these, however, there are separate and distinct sexes, organs which prepare the generative fluids, a real and visible copulation, a greater or less number of eggs, the changes of these into animals more or less perfect, mutations and transformations of these animals until they acquire their complete development, with many other curious and interesting considerations. Such are the facts which the silkworm, the butterfly, the bee, the fly, the spider, even those parasitic animals which are sometimes found on the surface of the human body, present us*.

Sex of Insects.—There is a glandular body (testicle) in the abdomen of the male insect, supplied with blood-vessels, and destined to form a fluid, which is conducted by a tube (vas deferens) to a small bladder (vesicula seminalis), from which another small tube (ejaculatory canal) conveys it to the female organs. It is easy to observe near the anus of the butterfly, bee, wasp, and other insects, a small elongated body which is capable of erection. There are, however, exceptions in certain insects, as the male spider, for example, in which the sexual organs are near the mouth, and in some others under the abdomen.

We also observe a perfect genital apparatus in the abdomen of the female insect. It consists of a glandular body (ovary), destined to prepare a number of eggs, which are finally to be transformed into new beings. The ovary opens by a canal (vagina in animals, style in flowers) near the anus, and this tube is destined to convey the male seed, during coition, to the eggs in the ovary, and to transmit these, after fecundation, into the world (parturition).

In most females there is a canal of greater or less length, terminated by a point, in which there are beds for the eggs. There are also other distinctive characters of the sexes. The males are in general smaller, they have ante-

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* Harvey most bitterly laments the loss of his museum and Researches on the Generation of Insects, which were destroyed by the rabble during the civil wars, and which had occupied his attention for many years. (Exercit. lxviii.)

næ (horns), are knotted, possess beard or hairs, which are not recognised in the females of the same species. Certain others have wings, while the females have none, or very small ones; the male is often grey, the female white. There are some insects, such as bees and certain ants, which are incapable of reproduction, on account of the imperfection of their sexual apparatus. These are neuters, mules, or hermaphrodites.

Puberty of Insects.—It is when insects have arrived at the period of their development and strength that they deliver themselves to the act of reproduction; and this epoch begins, in general, every year, at least in our climate, at the return of spring and before autumn. Then, the larvæ of the caterpillar, which were worms, acquire the beautiful forms which we so much admire in the various butterflies. Their sensibility and their contractility acquire the most sudden and extraordinary development. All their movements are performed with extreme agility; they are in a state of continual agitation; they perform with ardour the act of reproduction; they appear to wish to compensate, by the rapidity of their actions, for the short duration of their existence. It is, however, impossible to conceive the functions of insects without a knowledge of the preliminary metamorphoses through which they must pass before the epoch of puberty.

Metamorphoses of Insects.—Flies, bees, wasps, butterflies, and an infinity of insects which we see fly in the air, and ardently delivering themselves to the pleasures of reproduction, have not acquired this perfection at one period, but by a series of mutations, which are termed metamorphoses. The silkworm affords a familiar illustration of these mutations. The first state of this animal, as in all insects, is an egg, deposited by the female in a favourable situation for its development. It generally requires six months to expand into a living being.

The first products of the eggs are very small, elongated animals, resembling worms, except that they possess sixteen spots like those on the leaves of the mulberry tree, which enlarge with great rapidity.

The insect is now called larva, caterpillar, or silkworm. The worms which we see in cheese, bacon, &c., are larvæ of flies and other insects in the first stage of their existence*. The larva rapidly changes its skin four times, and then forms a bed or tapestry of silk, in which there is an oval opening. This habitation preserves it from being injured by other insects or foreign bodies, and is called a silken shell or follicle. On dividing this shell we see the larva. Thus surrounded by this shell, the larva soon throws off its fourth skin, and assumes a new form, called *nympha*, *chrysalis*, *aurelia*, *&c.* In about three weeks after this change, the aurelia assumes a new and its last transformation, which renders it totally different from its primary states. It now becomes a perfect insect, of a white colour, which rapidly escapes from its habitation; it flies into the air by the aid of its four wings; it speedily seeks the other sex, and turns its short existence to the best account—to copulation, and dies immediately. Such is the ordinary mode of development of the greatest number of insects which fly in the air, including the species of butterflies, which amount to 1500. All insects do not pass through such complete transformations, even among the winged tribes. Thus, in aquatic grasshoppers, crickets, flying bugs, &c., the larvæ acquire only the new skin and wings which they wanted. Other insects only experience slight changes in their skin, either by renewing it or changing its colour: thus tics, mites, hand-worms, fleas, crab-lice, spiders, &c., observe these laws; but it is superfluous to enter into more minute details.

Copulation of Insects.—These, like all other living beings, cannot per-

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* There is a vast deal of information on this point in Good's Study of Medicine.

petuate their species unless by copulation and the emission of seed. As in plants and higher animals, the spermatic fluid of the male is ejaculated into the organs of the female, and transmitted to the ovary, whose eggs it vivifies.

At the return of spring, when the surface of the earth is warmed and reanimated, the innumerable tribes of insects are roused from their torpidity and hibernation by the rays of the sun; all are impressed to pay their tribute to regeneration. The spermatic odour of flowering plants increases the amorous impulse of insects, and all animated nature multiplies and reproduces. We may now observe a vast number of insects in the act of copulation, butterflies, common flies, &c. &c.

Male insects are much more numerous than females, but after fecundation they lose their vigour and perish. It often happens that the male expires immediately after having paid his tribute to nature, and in other instances he is put to death by the female, which surpasses him in strength and vigour; which may be observed among domestic flies, spiders, &c. &c.

Deposition of Eggs of Females.—Almost all insects are oviparous, that is to say, are reproduced by eggs. These require six or seven months for transformation of larvæ into insects. Others are fully developed in a few days, and many require the lapse of years. There is also a great variety in the months of the years in which these transformations take place. In the greater number of insects, and in temperate climates, the greatest number of transformations occur from the month of June to the month of September, though there are some in winter.

Most insects perish immediately after copulation, but there are some, as spiders, which survive and propagate for several years.

The instinct with which female insects deposit their eggs, in situations most favourable to their development, is a most remarkable fact in natural history. They deposit their eggs in vegetables, and in animal substances in incipient putrefaction; as in meat, cheese, &c., and in the dead human body, from which larvæ result, which are commonly called worms. We observe them also in the leaves and barks of trees, and in different parts of plants, and likewise in living and dead animal bodies. Some of them are detected under the skin of man and inferior animals, as certain species of œstrum; others deposit their eggs in the nostrils of sheep, horses, and even of man; and their larvæ have occasioned fatal consequences.

Thus, it is for the conservation of the species, that the nobler animals become the pasture of insects, and of worms of the vilest appearance, and that nature views in this light the spider destroying the fly which it has caught in its net, the bug sucking the blood of man, and the various small animals destroyed by the lion and other beasts.

When dead animal bodies are exposed to the air before inhumation, certain flies deposit their eggs upon the skin, and these are incubated, become larvæ, insects, and then may reproduce to the seventh or eighth generation. I have elsewhere given a full account of the development of worms in the human body after death, and shown that all organized beings become the food of others*. It would be foreign to my present subject to describe the different species of insects or other animals; in these lectures, I can but very briefly notice a few of each, and must refer all desirous of full information to the numerous works on natural history.

3.—*Crustacea—Worms—Mollusca.*—The great analogy between the

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* Manual of Medical Jurisprudence and State Medicine, second edition, 1836. Art. "Putrefaction of Animal Matters."

generative functions of the crustacea, worms, and mollusca, leads me to comprise these animals in one section :—

The crustacea are covered with crusts or shells, to preserve them from external injuries, as crabs, lobsters, oysters, &c. The animals closely resemble insects, except in breathing by branchiæ, or gills, which enable them to respire in the water.

Worms, as the lumbricus or earth-worm, differ from insects, in not having articulated members.

The mollusca, of which the snail is a familiar example, differs from the crustacea, in not having articulated members, and from insects and worms, in possessing respiratory organs instead of branchiæ. In fine, zoophytes, crustacea, worms, and mollusca are distinguished from reptiles, fishes, birds, and mammiferæ, in being invertebrate, or deprived of a spinal column.

The crustacea have male and female genital organs, testes, and ovaries, and reproduce by copulation and eggs ; and the female is larger than the male, as in insects. The sexual organs of the male crab are situated on the hind pair of legs. The ovaries of the female are placed under the great scale which covers the head and the body. There is a canal (style in plants, vagina in animals), which, penetrating the first part of the middle leg, terminates on the thigh of the same part, forming two small round openings, covered by a membrane, which opens when the male deposits his spermatic fluid, and through which the fecundated eggs escape. In proportion as the eggs are expelled, they accumulate, or cluster under the tail of the animal. Female crabs bring forth viviparously, that is, produce living offspring, and, like some insects, possess the faculty of reproducing without copulation, after having been fecundated, for two or three successive generations. The season of reproduction, with this class of animals, is November and December, but occasionally in January, February, and even March. Their eggs possess the power of being transformed into living beings, after having been separated for a long time from the body of the female ; and even after having been dried, if placed in water. The crustacea propagate with ardour, and remain so firmly united to the females, and so forgetful of danger, that they are often caught with facility by fishermen. It is also a remarkable fact, that these animals suffer no inconvenience on the loss of one or more of their extremities or limbs. The history of reproduction in worms is still obscure, though it may be observed in some of them, as the lumbrici, or earth-worms. These are hermaphrodites, and have the male and female sexual organs united about the middle of the body. Notwithstanding this union of organs, the function of reproduction requires the co-operation of two individuals : but copulation consists of affriction, and not of intromission of organs*. They deposit their eggs in the earth, where they are developed, but without any transformation, as in insects.

They also possess a singular power of vitality ; for if divided into several parts, each of these becomes a perfect animal.

Mollusca are divided into three orders :—

I. Those that are hermaphrodite, but which cannot propagate unless by the union of two individuals—as snails, sea snails, periwinkles, and others, which belong to the class of *gastropodes*. The male and female organs are distinctly observable in snails, on the right side of the neck. It is also through this aperture that the excrements of the animal are evacuated, and that the eggs pass ; and these are deposited in the earth, and are developed

* It is well known that in man, and a great number of animals, irritations of the skin produce sympathetic effects on the sexual organs, analogous to what happens in this class of beings.

in the same manner as those of earth-worms. Dr. Mason Good gives the following account of the reproduction of these animals. "The *helix hortensis*, or garden snail, is hermaphrodite, but incapable of breeding singly. In order to accomplish this, it is necessary that one individual should copulate with another, the male organ of each uniting with the female, and the female with the male, when both become impregnated. The manner in which this amour is conducted, is singular, and highly curious. They make their approach by discharging several small darts at each other, which are of a sharp form, and of a horny substance. The quiver is contained within a cavity, on the right side of the neck, and the darts are launched with some degree of force, at about the distance of two inches, till the whole are exhausted, when the war of love is over, and its consummation succeeds. The increase is by eggs, which are perfectly round, and about the size of small peas*."

II. There are others which have the sexes separate, couple and reproduce like insects; as polypi, argonauts (loligo), sepiæ, and all other *cephalapodes*.

III. There are mollusca which are perfectly hermaphrodite in the same individual, and propagate without any copulation: as the ostrea, mytilus, anatifa, balamus, and the other acephalous mollusca. We shall find, hereafter, that women, and inferior animals, give birth to acephalous offspring.

Thus, we observe, that perfect hermaphrodism only exists in soft, feeble, species which cannot search after each other to perform the act of generation. We never observe, on the contrary, this disposition in insects, reptiles, fishes, birds, mammiferæ, or man; that is, in those animals endowed with high nervous sensibility, with a powerful energy of action, and always in a condition to perform the function of reproduction. We cannot but admire the wisdom of nature, in taking care not to reunite the two sexes in individuals whose high sensibility would infallibly lead them, during the greater part of their existence, to abuse a function, and render it most dangerous to health, and to enjoy, every instant, the instruments of pleasure, of life, and of their destruction. There never was seen a perfect human hermaphrodite, and such an individual could not propagate in itself, as erection and penetration could not be performed by it. The fables of an individual propagating in itself, and successively acting as male and female with others, are totally unworthy of credence. In fine, there is no case on record, so far as my researches enable me to state, in which a human being possessed the male and female organs, in a perfect and normal condition.

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* Study of Medicine, vol. v.

CASES, WITH REMARKS.

By Ashbel Smith, M.D.

Case I. *Imperforate Anus—Recto-Vaginal Canal.—Operation.*—This was the case of a female infant. The accouchement of the mother was at the end of the ordinary period, of her first child, easy, and presenting nothing worthy of record. The child was of the usual size, healthy, and exhibited no malformation, except the one which I am about to describe. Some time after its birth, it was discovered that an anus was wanting, and that the excrements were voided through the vagina. The patient continued to void her feces, in this way, till she was four months old, lacking five or six days, when an operation for artificial anus was performed.

At the time of the operation, July 7, 1834, the general health of the little patient was good, unless we except a somewhat costive habit. It had been raised partly by the bottle, in consequence of a deficient secretion of its mother's breasts; but the derangement of its health was not greater than almost invariably accompanies imperfect nourishment, in the way instituted by nature. The genital organs, on careful examination, did not present *externally* any

thing remarkable or anormal. The clitoris, the labia, the fourchette, the meatus urinarius, were of the usual size and well formed. The hymen existed, but was small. Whether the os tincæ, and of course the womb, existed, I could not conveniently discover. The rectum terminated in the posterior and upper portion of the vagina. The perineum offered no trace of anus, except it were that the place it should have occupied was thought to be marked by a very slight brownish discoloration.

The operation was performed in the usual way. Assisted by my friend Dr. E. R. Gibson, I made an incision in the place commonly occupied by the anus, and continued it along the direction of the coccyx until I arrived at the rectum. The depth of this incision was from 9 to 12 lines. The rectum was thus opened to the extent of two-thirds or three-fourths of an inch, and some fecal matter was discharged through the incision. A transverse incision was made, and a tent smeared with sweet oil, was placed in the wound to keep it open. No untoward symptom succeeded the operation; the inflammation was moderate, and did not extend beyond the wound, nor in any degree complicate the general health.

About seven months after the operation, Feb. 1835, I again saw the patient. The artificial anus was perfectly healed, and would then easily admit an urethral bougie of the largest size, being of less dimensions than the original incision, in consequence, as is probable, of the difficulty in maintaining the tent in its place. The tent had been for a long time disused, and the artificial anus showed no disposition to contract further. Its parietes were covered with a smooth and apparently organized membrane. The feces were discharged partly through the recto-vaginal canal. It was intended to enlarge at some future time, the artificial anus, but the patient died of an acute disease some weeks subsequently to the last date, or more than eight months after the operation. No cadaveric examination, I understand, was made.

Of the final success of operations in cases like the foregoing, where no other malformation exists, I can entertain no doubt. What arrangement of the muscular fibres of the rectum existed in the present case, I will not attempt to conjecture. The artificial anus appeared to be under the control of a sphincter, for the feces did not come away in a regular stillicidium, but were discharged at intervals. Nor did the recto-vaginal canal, or vulva, serve as a receptacle. When I performed the operation, this canal was quite empty, while the rectum proper contained a considerable quantity of fecal matter, which was discharged through the artificial opening. I think, too, that the recto-vaginal aperture, in case it should remain open and occasion inconvenience, might be closed with the aid of a speculum and other appropriate instruments, when a patient should attain sufficient size. The case related by Ricord, of the Hospital du Midi, of a woman aged 22 years, in whom this malformation existed, and who had been subjected to no operation, is in this and some other points of view, one of the most interesting on record:—it confirms the opinion of Sabatier, that this malformation is not necessarily fatal. A great obstacle to the success of this operation is, the difficulty in preventing the reunion of the new anus; though, as far as an opinion may be formed from a single case, I think it has been overrated by Benjamin Bell, Miller, and others—and old Dionis, to whom a case requiring a deep incision occurred, treats this difficulty slightingly.

Case II. *Fungus of the Urethra—Symptoms counterfeiting those of Stone in the Bladder—Operation—Complete Relief.*—Dec. 15, 1834. Mrs.———, aged 48 years, of a good constitution, middle stature, rather spare habit, brunette complexion, chestnut hair, brown eyes. She has been married about 25 years; was at that time in good health, and became pregnant shortly thereafter. She aborted about the 6th or 7th month, with little or no pains, except quite moderate labour-pains. She has since had a single child. Between her first and last pregnancy —an interval of several months—she for the first time, had occasional paroxysms of severe pain, which was referred to the genito-urinary organs, without her being able to distinguish which of these systems was primarily affected. The paroxysms commonly were but of a few hours' duration. About this time she discovered a small sessile body, of a bright red colour, situated at the extremity of the urethra; to this she attributed so little importance, that she was unaware of its being an anormal growth. The pains gradually increased in severity, duration, and frequency of recurrence, for several years. She then had an exemption for some years, under the use of a medicine not known, but conjectured to be an animal oil. Her complaint afterwards returned with increasing severity, till her life had but few intervals of ease, between paroxysms of long and extreme suffering. The small tumour, formerly sessile, she at length discovered to be attached by a shorter pedicle. Paroxysms of intense suffering were occasioned by slight causes. Mental agitation, fatigue, brisk purgatives, the menstrual period, and the ritus connubialis certainly produced them. She was harrassed with hæmorrhoids, and a paroxysm of these or of the urethral affection, for the most part, mutually brought on each other. Latterly the hæmorrhoidal affection has ceased to trouble her. Her urine on standing, deposited a copious brick-dust sediment. She has had occasionally severe pains in the

lumbar region; but no connexion between them and her permanent affection was supposed to exist. No pain can be recollected referable to the ureters, nor any extending down the inside of the thighs. Riding in a carriage did not bring on nor aggravate a paroxysm. The pains were at first alleviated by a free use of gum arabic water, by balsam of copaiba, the hip bath, &c. Subsequently she made frequent use of calcined magnesia, and latterly she has employed the same medicine in union with the sulphate of magnesia and wine of colchicum, according to Sir C. Scudamore's formula. From magnesia in these ways, she has derived the most sensible relief. Anodynes, chiefly opium, she has resorted to, to mitigate present agony. S. S. nitre afforded her no alleviation.

The regularity of her menstruation, the copious lateritious sediment of the urine, and the relief afforded by the medicines mentioned above, decided me in the opinion, that the urinary organs were primarily affected; though from the painfulness of her menstrual periods, and the location of her sufferings, the patient hesitated between fixing on the genital or urinary organs. And so little importance did she attach to the small fungous tumour, that until recently she never even mentioned it; and then in such a way that its exact situation was not suspected. I halted between the suspicions of a calculus, or a fungus or polypous excrescence within the bladder. Her delicacy shrunk from an examination with the sound; till prostrate on a bed of torture hardly intermitted, her health wasted, and life ebbing gradually under the pain, the patient requested me to repair with every instrument necessary for any operation. An examination with the sound *sine visu* taught nothing. An ocular inspection discovered a fungus of the size of a large pea, of a strawberry red colour, attached by a short pedicle to the urethra near its outer extremity. It was seized with a pair of forceps, and cut off. A few drops of blood followed.

Oct. 1835.—The relief afforded by the removal of this little fungous tumour was complete. Ten months have since elapsed, and the patient has not felt the slightest return of the pain to which she had been more or less subject for upwards of twenty years; which, during the latter portion of this period, confined the patient a large share of her time to the bed, and was rapidly wearing out the life which its torture had rendered a burden.

Some will doubtless be of opinion, that I have detailed the symptoms of this case with more minuteness than so insignificant an operation merits. Perhaps I have; but I have not known a similar train of symptoms produced by diseases of the urethra, except such as occupy its upper portion, or the neck of the bladder;—nor have I been able to find in the treatises on surgical diseases, cases like the one I have related, though it is possible there may be such, which have escaped my research. I do indeed find plenty of fungi and polypi producing symptoms counterfeiting the stone, from Fabricius Hildanus and Morgagni down to the present time. But then these excrescences were situated in the bladder, or near its neck, and are rarely the subject of an operation. And perhaps greater care in examining the cases of severe irritation of the female genito-urinary organs, which occur to almost every practitioner, may now and then discover some small and easily removable local cause of the irritation, and thus a life of torture be converted into one of enjoyment. To a physician it might be interesting to inquire what influence the painfulness of the marital rite exerted in preventing conception in an individual otherwise healthy and of an admirably balanced system.

Case III. *Fracture and Depression of Cranium—Comatose state for 20 Days, during which time Paroxysms of a Quartan Intermittent regularly occurred—Permanent Impairment of Memory.*—I am aware that the following case presents nothing novel, in a surgical point of view. I have sent it to you solely on account of one circumstance mentioned in the caption, viz: that all the phenomena of a regular quartan uniformly occurred at the proper intervals, without appearing to influence or be interrupted by the profound stupor in which the patient was lying.

A—— K——, aged 17 years, of fair complexion, light hair and eyes, and moderately robust, had been labouring under a quartan intermittent for some time previously to April 5, 1834. On this day he had his skull broken by the falling of a limb of a tree. Three hours after this accident, I saw him. He was then speechless, motionless, and in a profound stupor. His pulse was feeble and slow—his skin cool and dry. A large ecchymosis was formed beneath the upper and front part of the hairy scalp, principally on the left side of the median line; the left eyelid was tinged with extravasated blood. Through the ecchymosis was felt an extensive fracture of the bone crossing the left portion of the coronal and the anterior end of the sagittal sutures. A single incision gave free exit to a quantity of blood, showed the pericranium extensively detached from the cranium, and exposed a depression of the anterior edge of the fracture below the inner table of its posterior edge, and the fractured portions were sufficiently separated to admit readily the elevator. The depression was elevated accordingly, without any destruction of bone. He manifested no sensation from the cutting, nor any relief from the flow of blood, on the elevation of the bone. He

remained perfectly insensible to every thing —swallowed only fluids, and these with extreme difficulty, in small quantities, and unconsciously. His pulse rose in the course of an hour or two, when about ℥ vi of blood were drawn from the arm. A folded linen cloth, wet in brandy and water, was laid over the wound on his head; the compound infusion of senna was given him as he was able to swallow, and laxative enemata were administered. He lay in this comatose state about four days, without noticing anything or uttering a word. His bowels were then moved, and he would mutter a few incoherent words when loudly spoken to. He continued in this condition till about the 20th day after receiving the injury, when he was first observed to notice occasionally what took place about him. He recovered his health very slowly. Nothing more was done for him, except to give him a very light liquid diet, and the occasional administration of a laxative.

The day on which his skull was fractured, was the one in regular course for his chill and fever. Accordingly, on this day, and on every succeeding third day, he exhibited all the sensible phenomena of a paroxysm of intermittent fever, with very little, if any, interruption by the cerebral oppression. This case presented the most complete and longest temporary suspension of all the visible cerebral functions I ever witnessed. For a long time the patient was but one remove from apoplexy. The intermittent was cured many weeks afterwards, by sulphate of quinine and hydrocyanate of iron. I have related the case for the bearing it seems to have on some exclusive theories of fever. In some cases, the brain can be only a passive participator in the general disturbance; for, as with the case before us, with its functions so completely suspended, and the general symptoms of the paroxysms thereby so little affected, we can hardly suppose the brain an essential agent in the production of the morbid phenomena.

The patient has not the slightest recollection of any thing that took place the day his skull was fractured, and his memory of subsequent events appears permanently impaired, though his general health is perfectly restored. The organs, as located by the phrenologists, chiefly injured, are imitation, marvellousness, and ideality.—*American Journal of the Medical Sciences.*

Obstetric Statistics.

During the last year 2064 women died in child-bed, and 6660 infants were still born, according to the bills of mortality of London.

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Reviews.

A Sketch of the Medical Monopolies, with a Plan of Reform, addressed to the Right Hon. Lord John Russell, His Majesty's Secretary of State for the Home Department. By James Kenedy, M. R. C. S., Author of the History of Cholera. London: Moxon. 1836.

Our author expresses his opinion that parliament ought to regulate medical education; but we very much fear that this is expecting too much from the legislature. There are many of opinion, that the medical corporations are alone competent to perform this duty, while others contend that they require compulsion. It appears to us, that whatever course is adopted, the corporate bodies will be consulted, and their reports will most probably influence the legislature. Mr. Kenedy's exposition of the present state of medical education, is by no means so correct as it ought to have been: and this will appear immediately. The table we are about to insert will shew this very clearly.

"With the intention of educing its principles, the general course of medical education may be divided into two departments—the *Illustrative* and the *Practical.* The illustrative will comprehend attendance on all such lectures as those of anatomy, chemistry, &c., in which the lecturer is expected to give a concise and clear view of his particular subject, and to illustrate it, as in chemistry, by experiments—or, as in anatomy, by showing the different parts of the human body to the students, at the same time that they are described. The practical department will comprehend attendance on hospital practice, and clinical lectures; a knowledge of the human body, obtained from actual dissection, and a knowledge of pharmacy, &c.

"If this division be applied to the general course of medical education now required of students, the subjoined table will exhibit the parts of which it is composed:—

Illustrative.

Lectures on Anatomy and Physiology.
———— Demonstrative Anatomy.
———— Surgery.
———— Midwifery.
———— Practice of Physic.
———— Materia Medica.
———— Chemistry.
———— Botany.
———— Forensic Medicine.

Practical.

Hospital Attendance, Medical.
Hospital Attendance, Surgical.

Clinical Lectures.
Actual Dissection.
Pharmacy."

Here is an unintelligible arrangement for unprofessional readers. The author might surely have followed the curricula of the universities, and other corporations, all of which are infinitely superior to his own. Thus, compare the position of demonstrative anatomy, and that of actual dissection in this table, and see how improperly these are separated. But let us follow our author—

"Extending, as does this general course of medical education, to various branches of knowledge, and the above are probably not the whole that it should embrace, its regulation will require great care, in order that the student's expenditure of time and money be not injudiciously or improvidently directed; or that the interests of the public be not eventually compromised by an undue preference being given to any one section of the circle of knowledge, which is necessary to form the able practitioner in medicine.

"In the writer's opinion, the principles that should regulate the compulsory part of medical education may be fairly educed from the nature and objects of the *two* departments into which he has divided the subject.

"The *Illustrative* department places before the student, in each individual course of lectures, a complete, though somewhat general view of that branch of knowledge of which it treats, leaving him to supply every omission, as to details, from those elementary books that are in his possession. It is evident, from the very nature of an illustrative course of lectures, that the information to be obtained in this way has a *limit* that is soon reached. For instance, lectures on anatomy, of an hour each, are given daily, during about six months, which form a *complete* course of anatomy, and a student who has attended this course, will hear nearly the same thing repeated, should he continue his attendance on every course to be delivered in a dozen of successive years. In a very few of the more important branches, it may perhaps be advisable for a student to attend a *second* course of the *same* lectures, and the more particularly, if he have not paid sufficient attention to the first to qualify him fully to understand the descriptions afforded in elementary works; but to oblige a student to attend *in every branch* a *second* course of the *same* lectures, for which, be it recollected, he would have to expend a considerable sum—would be to oblige him to *squander* both his money and his time. Now, if the nature and objects of the illustrative department be such as are here explained, would it not be better to *limit* the *compulsory* attendance of the student to *one* course on *every* illustrative branch, leaving it *optional* with himself to continue their study, rather than to maintain the present regulations, by which an attendance on *two* or more courses of the *same* lectures is *enforced*, whether the student really require or not a continuance of this mode of tuition? The adoption of this apparently slight change in the present compulsory part of medical education would give a rational simplicity to the whole system, and might lead to, and facilitate the introduction of numerous improvements that are urgently required. In the first place, the undue preponderance of any one element of study being guarded against, the branches of knowledge contained in the illustrative department might be increased in number and variety without enlarging the expense attendant on the whole. In this way lectures on *morbid* anatomy, a most important branch of study, at present unaccountably neglected, might, with one or two other branches, be safely included in the illustrative department. Secondly, the due regulation of the illustrative department would enable the student to devote a larger and more appropriate share of his resources to the acquirement of *practical* knowledge. The practical department has not received a degree of attention at all commensurate to its value; and although it is therein that the proper character of the physician or surgeon must be formed, hitherto the whole of the practical department, with the exception of pharmacy, has been placed by the authorities that have the control of medical education in a position *subordinate* to the illustrative department, instead of the *practical* occupying the *first* place, as it ought to do."

It is a matter of no small surprise to us, to see a modern writer contending against the necessity of two courses of what he unhappily designates, lectures on the illustrative department; and on this he differs from all the examining boards in the United Kingdom.

"From the division of the general course of medical education into two departments, it is not to be understood that a student finishes his studies in one, before he enters the other. These departments do not admit of any division of that kind. They mutually throw light upon and assist each other—although, as a general rule, one course of those illustrative lectures, which are most intimately connected with the *rudiments* of practical knowledge, should precede the study of the latter. Finally, when the student is sufficiently advanced to comprehend the varied information contained in the medical libraries, without the assistance

of illustrative lectures, his further progress in the science must be left to his use of the libraries, and to his labours in the practical department.

"In speaking of the regulation of the illustrative department, it was suggested that *compulsory* attendance should be limited to *one* course of such lectures, in order to preserve the *student* from an useless expenditure of time and money; but in regard to the *practical* department, it is the immediate interests of the *public* which require protection. These interests demand that no student of medicine should be permitted to commence the practice of his profession, before he has spent a considerable time in the acquisition of practical knowledge. It is not, of course, possible to fix an invariable standard to indicate the maximum of the time suitable to this object under every circumstance; no difficulty, however, would be experienced in the formation of a judicious minimum, and it would appear to be most desirable that parliament should *declare* the minimum of time that is to be spent in the study of those branches that belong to the *practical* department. Were hospital attendance on *midwifery* added, as it ought to be, to the table of practical studies, the period of attendance on medical, surgical, and midwifery practice in hospital might, perhaps, be prudently extended to two and a half years. Attendance on clinical lectures might be placed at twelve months, dissection at twelve months, and pharmacy at six."

The only part of this extract, with the sentiments expressed in which we at all concur, is that in which extension of practical medicine is advocated.

Our author next notices the time now allotted to medical study; and here also he appears to us to entertain opinions which are exclusively his own, and which no one, who has heard the evidence before Mr. Warburton's Committee will assent to.

"The period at present prescribed by the corporations, for the completion of the general course of medical education is FIVE YEARS. This period is probably the best that could be adopted *as to time*, and there is no reason that parliament should interfere with it, further than to make it general throughout the three kingdoms; but the manner in which the different branches of knowledge are, or may be studied, in this period, by the student, is the worst that could be devised. According to the regulations of the corporation of pharmacy, a student is compelled to pass *the greater part* of the five years in the labours of pharmacy, which is a very unimportant, indeed, a comparatively simple branch of knowledge, when estimated by the time or ability requisite to its complete attainment; and in relation to those numerous and abstruse branches of illustrative and practical study, that are left to be hurried or skimmed over in the remainder of the period allotted to medical education. The corporation of surgery, on the other hand, leaves it nearly at the choice of the student to go through the whole course in any way he pleases; and provided the *greater part* of the five years be *nominally* filled up with the study of pharmacy, or any comparatively unimportant section, the whole course, with this exception, may be crushed into the small and totally inadequate period of *eighteen months*. The corporation of physic, in its *recent* regulations, has endeavoured to avoid these gross defects. But in a matter of such great importance, affecting as it does the very basis of medical education, some clear principle is required to guide and rule the conduct of the student. *Three courses* of illustrative lectures, on different branches of science, are probably quite as much as a student can attend with advantage during one session; and if this be so, might not parliament judiciously interfere, and declare that attendance on more than *three courses during one session* shall not be recognised by any examining board.

"As the *direct* interference of parliament, in the regulation of medical education, cannot in any case be extended beyond the establishment of a *few principles*, that may remain invariable, the foregoing suggestions appear to include all that can be brought under that head. According to these suggestions, *four* regulating principles might be established.

"1st.—That the period of medical education, shall, at least, be extended to FIVE YEARS.

"2nd.—That no student shall be *compelled* to attend more than *one* course of illustrative lectures on the same branch.

"3rd.—That attendance on more than *three* courses of *illustrative* lectures on different branches, during *one* session, shall not be recognised.

"4th—That the minimum of study in the practical department shall be two and a half years' attendance on the medical, surgical, and midwifery practice of an hospital: twelve months on clinical lectures: twelve at dissection: and six at pharmacy.

We should like to see the student who is a good chemist, anatomist, pharmaceutist, &c. after attendance on lectures for six months. All agreed, before parliament, that two courses of these lectures ought to be required, and double the number upon practical subjects.

We now come to preliminary education, on which we cannot agree with our author.

Here again he is an advocate for diminishing, instead of increasing the general education.

"The numerous minor regulations that appertain to the government of medical education must be left in a great measure to the control of whatever body or examining board parliament may constitute to supply the places of the medical corporations, in so far as they have hitherto had that duty to perform.

"There is some further room for the direct interference of parliament in a department of education, that has not as yet been touched upon, namely—the preliminary education, or that which consists of classical and other branches of general learning. What sort of preliminary education should an individual who is destined for the medical profession go through before he commences his studies? On this subject, as on most others, very contradictory opinions are held. Some allege that students should be proficients in the Greek and Latin languages, also in German and French, and have considerable skill in mathematics, logic, &c., before they are permitted to begin their professional studies. If such a preliminary education as this be added to the professional, the sum total will furnish a very formidable array of attainments for any young man 21 or 22 years of age to possess. Of course, no medical student can acquire *too much* knowledge of either kind, provided an undue importance be not given to any particular branch; the question, however, is not as to what is desirable, but as to the amount and quality of that which may be deemed practicable and necessary.

"The only substantial reason that could be assigned for parliament interfering at all with medical education is the incompetence of the public to form a proper estimate of the value of medical advice. Now, if this reasoning be good, when so applied, it will be equally good when applied to the *preliminary* education, and on this principle it may be urged, that parliament should limit the *compulsory* part of the preliminary education to the quantity of Latin and Greek necessary to enable the student to understand the lingual peculiarities of his professional curriculum and adapt them to practice. A very moderate acquaintance with these languages will be sufficient for that purpose: as much Greek, for instance, as may be required to explain the derivations of medical terms of Greek origin, and as much Latin as may be required for the reading and writing of prescriptions. Taking this view, the *compulsory* part of the preliminary education might be comprised in the following items:—

"An ordinary acquaintance with the grammars of the Greek and Latin languages.

"Ability to translate a small quantity of Greek, such as one of the gospels.

"Ability to translate some work of moderate length in the Latin language, such as Sallust.

"Some of the medical corporations test the student's acquirements in the Latin language by an examination in Celsus, one of the *medical* classics. The propriety of giving this preference to the works of an ancient professional writer, as the subject of examination, may be questioned. The student's proper object in such preliminary reading is merely to acquire a knowledge of the *language*, but while doing this in Celsus, or any other ancient writer on medicine, he will, at the same time, be imbibing many erroneous views and opinions relating to medical practice, which he may afterwards find it difficult to correct. Ancient works, that treat of so fluctuating an art, are now of little value unless in a historical point of view, and consequently their perusal will be better suited to those persons who have already completed their professional studies.

"The writer has advocated the introduction of a very moderate standard of *preliminary* education—not that the very highest degree is unsuited to the character of a medical man, or that its acquirement should be in any way discountenanced—but on the ground that the *compulsory* part of this education ought to be limited to what is really indispensable for *elementary* professional purposes, and on the persuasion that, beyond this, the public are quite competent to form a proper estimate of its value, and to assign to it a due position and reward, without the further interference of parliament, or of any subordinate authority."

According to Mr. Kenedy's views, the general education of universities is an incumbrance; for the compulsory part of the preliminary education ought to consist in a knowledge of the grammars of the Greek and Latin languages, so that he would have ability to translate one of the gospels, and Sallust. Unfortunately it is too true that a large majority of the present and rising members do not even possess this quantum of classical learning; and if the whole faculty were equally illiterate, what, we beg to ask, would become of the state of medical literature in this country?

Our author next alludes to the constitution of practical examining boards, and offers some very just strictures upon their defects. We entirely agree with him, that professors in the universities or chartered schools, or individuals in any way connected with the pecuniary interests of public seminaries, should *not* be examiners of their own students when they apply for a licence to

practise. The following plan of reform is proposed, and deserves consideration.

"At present these boards are constituent parts of the medical corporations, and they are, therefore, liable to all the objections that may be applied to these close and irresponsible bodies. A thorough reform is required to place them upon an efficient basis. For the reform of the practical boards, the writer would suggest the adoption of the following principles:—

"That the number of the practical examining boards should be reduced as much as may be consistent with the interests of the public.

"That the members of these boards, or the greater part of them, should be elected by the profession for a limited period of time.

"That the reformed boards should be placed under the immediate control of the Secretary of State for the Home department.

"It is expected that the operation of these principles in the constitution of examining boards would produce *efficiency* and *uniformity* in their practice, which are at present so much wanted; and that the reformed boards would possess the *confidence* of the *profession* at large, which is an essential consideration.

"In accordance with the above principles, and the plan of reform which he has sketched for the colleges of the faculty, the writer would suggest the following details:—

"That the practical examining boards be limited to *one* in each of the metropolitan cities of London, Edinburgh, and Dublin.

"That the members of these general boards be elected for a period of three or five years by the reformed colleges of the faculty in these different localities—an equal number of members to be elected by the College of Physicians and College of Surgeons.

"That the members so elected be subject to the approval of the Home Secretary, and that the Secretary of State have a further privilege or power to dissolve the boards, or any of them, that may not act with due regard to the interests of the public, or of those medical students that present themselves for examination.

"That the meetings of the general boards in the different capitals be held at the college of *surgery*, as it is intended that *all* students who succeed in passing the practical examinations shall be enrolled, in the first instance, *as members of the colleges of surgery*.

"Having made the examining boards strictly responsible to the public, through the medium of the Home Secretary, and to the profession, by the elective control which it would exercise over their members, the writer proposes to extend the powers of these boards in *one* direction. Instead of leaving it with the corporations, whether reformed or not, to decide upon the amount and quality of the practical education that might from time to time be required of students, he would commit the execution of that very important trust to the general boards, assisted and sanctioned by the presidents of the colleges of faculty—and, as a further precaution against erroneous regulations, in a matter of such import, he would subject the united decision of these responsible authorities to the approval of the Secretary of State, before it should come into operation.

"At present the members of the practical boards are *paid* for their services, and if they have any fair claims to remuneration now, those claims would be greatly strengthened under a reformed constitution. With only one practical board in each of the three kingdoms, the duties of their members would be very laborious; and to the public, it would be of the first moment that those duties should be executed with zeal, judgment, and discretion. There is an unfortunate tendency abroad which would place the remuneration of scientific men on the lowest possible scale. This is a false economy, and appears scarcely equitable, when such large salaries are annually allotted to various officers in the public departments, whose duties, as regard the interests of the community, are of a very inferior description, compared to those which are assigned to the members of the medical boards. A salary of from 300*l.* to 500*l.* a-year each would not be too much for the members of the reformed boards. Apart from the justice of the thing, a liberal salary, by making the appointments worth retaining in a pecuniary view, would render the members much more amenable to the salutary control of the Secretary of State."

The preceding suggestions are extremely important; and, indeed, both feasible and practicable. If every member of the medical profession must be a surgeon—and he undoubtedly ought to be—then he should be examined in the first instance before one of the respective colleges of surgery.

The election of presidents and governing councils of the colleges of the faculty might be totally changed.

"In speaking of the election of the presidents and governing councils of the colleges of faculty, it was proposed that all members might vote, if they thought fit, at such elections, and that all members were to be eligible to be elected as office-bearers. This unrestricted qualification and freedom of choice seemed best suited to a body of educated men, in so far as the filling of honorary offices was concerned. Yet it may be doubted whether the election of members of the examining boards, who are *paid* for their services, could be conducted in the same way with equal advantage. In regard to them, it would probably be ad-

visable to narrow the constituency in some degree, leaving the eligibility as expanded as before. With that intention, it might be suggested that the members of the boards should be elected by such members of the colleges of faculty as reside, and have resided, during a period of three years, within the parliamentary boundaries of the different capitals.

"Were the direct control of the examining boards committed to the Secretary of State, it might be well to give to this authority a power to appoint some members during pleasure, in order, amongst other reasons, that the secretary might have an open channel of intercourse with the board, without incurring at all times the inconvenience of making a formal communication. In case, therefore, the elective members of each board were to be *ten* in number, the secretary might have the appointment of two, which would make twelve, for the whole board. The members of the *first* boards ought, perhaps, to be appointed solely by the Secretary of State, as a little time must elapse before the reformed corporations would assume a state of settled order, and before the perturbed feelings excited by change would subside.

"Many minor arrangements would obviously depend on the character of the preceding. As it is one of the leading objects of the projected reform to remove those artificial and injurious distinctions that exist between different classes of medical men, the Secretary of State, and *not* the corporations, should have the power to assign to each member of the practical boards the duties that he is to be called upon to perform, and to decide whether he is to be an examiner in physic, surgery, midwifery, or pharmacy, or in any of the branches of science more immediately connected with these departments. The secretary should also determine, as a general regulation, how often and when the boards are to meet, and whether their members are to be divided into *sections*, for the examination of students in the several departments of the profession, or to remain for that purpose, as a *whole*. At present, the examination of students is conducted before *all* the members of the board before which they appear, and the fitness or unfitness of those students to receive a licence to practise is decided at *one* examination, both of which regulations are very inconvenient and defective. This solitary examination, which is intended to test the attainments of candidates in so many branches of knowledge, does not extend in general beyond *twenty or thirty minutes* for each candidate, a period totally inadequate to its object; and as it is conducted, on the part of the board, by *one* or *two* examiners, the majority remain merely as spectators. To remedy these defects, the members of a practical board might be divided into *three* sections, and a similar division might be made of the various branches of professional knowledge in which a student is to be examined; each section of the board to examine in the department allotted to it. In accordance with this regulation, *three* examinations might be instituted, instead of one, and these sectional examinations might be conveniently held on *separate* days. For instance, a student's examination, as to its general objects, might on the first day be devoted to chemistry, materia medica, and pharmacy; on the second day, to anatomy, surgery, and midwifery; and on the third day, to the practice of physic, morbid anatomy, and forensic medicine. On the *fourth* day, all the members of the board might meet, and come collectively to a decision on the merits of the respective candidates, founded on the report of the different sections."

Our author is not correct in stating that the examinations for the surgical diploma, do not occupy more than twenty or thirty minutes for each candidate; as there are two examinations on different days in Dublin, each occupying an hour, or an hour and a half; and one in Edinburgh of the same duration. It is certainly true that the examinations before the London College of Surgeons average about an hour, which is much too short, as the trials are solely in anatomy and surgery, and are totally inadequate for a licence to practise.

In Dublin, the surgical aspirant is minutely examined in all the medical sciences, and to some extent in Edinburgh; but we are free to confess, that the plan proposed by our author is very far superior, though he borrows it from our Gallic contemporaries without acknowledgment.

We are next favoured with remarks on public examinations.

"The propriety of holding the examinations *in public* has been much agitated of late. Of course this can only apply to a *professional* public, as unprofessional people could know nothing of the subjects of a medical examination. Many students are said to be desirous of this change. As far as students are concerned, it would not be difficult to show that a private examination by a *responsible* board, would probably be more to their advantage. At the same time, the choice of a public or private examination might safely be left with the students themselves, provided they made their election in the first instance, and *not after* they had been rejected at a private examination."

With the best possible feelings and wishes for the success of medical students, we must avow, that in clamouring for public examinations, they have been influenced by interested persons, whose object is to put them to expense, or facilitate their parasites in picking their pockets. The respective examiners have no interest in rejecting or degrading medical students, unless they merit it; nor are they in general so unacquainted with the world, even if they were so unprincipled, as to affix the stigma of degradation, without just cause, upon the brows of the sons of their fellow-citizens. Most of the examiners have passed through the terrific, or in truth the pacific ordeal of students; they will remember their own fears and anxieties, and the expectations of their nearest and dearest relations. To suppose for a moment, that such men would wantonly and wilfully degrade a fellow-subject on attempting to enter into the arduous career of life, is one of the greatest follies and falsehoods that can be imagined.

Suppose the public was present at medical examinations, what, we demand, could this mass of ignorance and stupidity know about the fairness or unfairness of the questions proposed? We fearlessly answer—nothing.

We have repeatedly observed the truth of this position, on looking at the heterogeneous auditors, consisting of all classes, of the great nation, at the medical examinations.

We cannot agree with our author that there is the slightest risk of a want of supply of medical practitioners at home and abroad. He may banish his fears on this head; the march of increase is as remarkable in medical as in other matters. Students, now-a-days, are infinitely better informed than their teachers were forty years ago; and, in proof of this statement, it is only necessary to remark, that notwithstanding the present comparatively severe examinations, the disciples of Esculapius are more numerous than ever.

Our worthy author seems, after the fashion of the by-gone school, to have a great objection to every thing foreign; according to his code, "nothing good can come out of Nazareth."

"It is an erroneous view of the objects of a purely elementary course of medical education that would lead an examining board to exact from students, as a qualification for a licence to practise, a familiar acquaintance with the French and German languages. Some physicians advise this, in order that students may be competent to ascertain the state of the art in other countries besides their own up to the period of their examination; but that is to confound what is desirable in the *experienced* practitioner with what is essential in a candidate for a licence. New theories or new modes of practice—the greater number of which are soon found to be altogether worthless—should never form the subject of a student's examination; and, in case an acquaintance with them is desirable for other purposes, although written in a foreign language, the student may at all events obtain it through the medium of a translation long before such new theories or practice can have received a current value with the profession."

It would appear that there are no able men in other countries, though every one well acquainted with the annals and progress of medical science is so stupid as to imagine that there are as many good and admirable treatises in the French and German languages as in our own. For our own parts, it has long afforded us the greatest pleasure to inform our students of the actual state of science in all civilized countries, and to prove to them, that science is nearly the same in all—*patens omnibus scientia.*

Our author is evidently no great admirer of new theories, or new modes of practice; the good old jog-trot method seems to be his favourite. Such trash as new alkalies and remedies, quinine, iodine, &c. ought not to have superseded the cortex Peruvianus or the palatable sea-weed. The good of translations cannot be disputed; they are most useful and valuable productions to all who need them; especially when *interlineal.*

The proposed course of study deserves due consideration.

"Every student, before being admitted to examination at a practical board, shall prove to the satisfaction of the board, that he has been engaged during five years, at least, in the acquirement of professional knowledge; and that he has attended the following branches of study during the periods of time prescribed:—

Illustrative Department.

One complete course of
Lectures on Anatomy and Physiology.

Lectures on Demonstrative Anatomy.
——————— Morbid Anatomy.
——————— Surgery.
——————— Midwifery.
——————— Practice of Physic.
——————— Materia Medica.
——————— Chemistry.
——————— Botany.
——————— Forensic Medicine.
——————— Natural Philosophy (popular.)

Practical Department.

Twelve months' actual dissection.
Twelve months' hospital attendance, medical.
Twelve months' hospital attendance, surgical.
Six months' hospital attendance, midwifery.
Six months as dresser in an hospital.
Six months' clinical lectures, medical.
Six months' clinical lectures, surgical.
Six months' pharmacy.

"As it is advisable that a student should pursue the different branches of study in some determinate order, the examining boards should direct that the lectures on morbid anatomy, the practice of physic, and forensic medicine, together with the hospital attendance and clinical lectures, be comprised in the *last* two years and a half of the *five* devoted to the curriculum at large.

"Attendance on more than *three* courses of illustrative lectures during *one* session, not to be recognised as any part of the curriculum.

"These two general rules as to the manner in which a student shall conduct his studies, it is expected, will be quite sufficient for all public purposes, and any further interference of the boards, which might have a harassing or vexatious effect, may be dispensed with."

According to Mr. Kenedy, our medical students must be more than Solomons, to study all he has laid down for them in the short period of eighteen months. Most unfortunately for his opinion, no medical man, from Hippocrates to the present, ever comprehended perfectly the whole of the sciences just mentioned. The father of physic, who incomparably surpassed all his successors even in this age of intellect, lived to the good old age of one hundred and four years, and said "that he had arrived at the end of life, but not at the end of medicine." According to our modern views, he must, with all his Greek, have been a stupid individual, as he might have obtained a perfect knowledge of the healing art, in all its branches, and the collateral sciences, in eighteen months!

We shall not follow our author in his views on the intended Metropolitan University, as they contain nothing novel.

It was with painful feelings that we commented, with apparent severity, upon his essay, because, in our opinion, though imperfect and erroneous on many points, it is undoubtedly well intended. But it ought to have been addressed to the Right Hon. T. Spring Rice, Chancellor of the Exchequer, the framer of the Metropolitan University of England; or to Henry Warburton, Esq. M.P., the zealous and enlightened chairman of the Committee on Medical Education, ordered by the House of Commons; or last, though not least, to the Right Hon. Lord John Russell, Secretary of State for the Home Department.

In parting with Mr. Kenedy, we do so with every sentiment of respect; and, although we differ from him on many points, we fully admit that his essay is calculated to benefit the medical profession and the public.

STATE OF MEDICINE AMONG THE HINDOOS.

(*From the India Journal of Medical Science.*)

At the present moment, when the subject of native medical education is so much engaging the attention of government, and the public in general, it may be desirable to cast any light, however small, upon the subject of medical systems, and medical literature, of which the natives are already in possession.

Indeed, common sense would seem to dictate, that before undertaking to teach, we should inquire what our scholars already know, and this with respect to the Hindoos more particularly, as I do not know that any European has attempted to explore the contents of the Sanscrit Medical Shasters. Though we have treatises of large dimensions on the philology, mythology, and antiquities of the Hindoos, on their medicine we have positively none at all.

The only exception to these remarks, that occurs to me at present, is an account of the medical and surgical sciences of the Hindoos, in the *Oriental Magazine* for March, 1823, from the pen (as I suppose) of the indefatigable H. H. Wilson, Esq. This is largely quoted in the preliminary observations to the second volume of the London edition of Ainslie's Materia Medica of Hindoostan, and that author has added a valuable account of one of the Tamool medical books. Still all leaves us much in the dark as to the real state of Sanscrit medicine.

These observations may perhaps render the following extract acceptable to your readers. It is the translation of two chapters of the Sootrausthaun, or first part of the Sooshroota* which is the most popular of the medical shastras, and among the oldest, having been dictated, according to the Hindoos, by Dhunnunturee, physician of the gods to his disciples, Oupudenhuva, Vaituruna, Orabhra, Ponshkalavuta, Kuruvirya, Goupuna, Ruksheta, Sooshroota, and some others. This constellation of sages, however, were too numerous to attend their master's lectures at one time, and they therefore entreated him to instruct Sooshroota by himself, and he having received the divine science as their representative, communicated it to his constituents, who, in turn, diffused it among mortals.

The following, then, is the translation alluded to :—

CHAPTER IV.—Now here we shall explain the chapter of conversation. To him who has attained the reading, but has not expounded it according to the sense, it is like a load of sandal-wood upon an ass; it is merely a cause of fatigue. Here is also a stanza.

As an ass bearing a bundle of sandal-wood, has a knowledge of its being a load, not of its being sandal-wood, so indeed, they, who having read many shastras, are yet ignorant of their meaning, carry (their knowledge) like asses.

On this account (in these 120 chapters,) every word, foot, verse, half verse, is to be elucidated and to be heard. On which account (the following things) are subtle. Substance, taste, quality, strength, assimilation, humours, elements, forces, viscera, organs, nerves, tendons, joints, bones, the formation of the fœtus, the partition of things (which are) assembled together, then the taking out of extraneous bodies concealed in the body, the ascertaining of inflammation, the distinction of fractures, the curable, alleviable, or incurable nature of diseases, and also other miscellaneous objects ; these, being considered a thousand times, may produce confusion in the intellect even of a person of pure and large understanding, what (will it do) again with a person of little understanding. Hence, it is necessary, that each word, each foot, sloke, and half sloke, is to be described and be attended to. Of those occurring matters, which are objects of other shastras, and which are introduced here through necessity, the explanation is to be heard from learned men, because it is not indeed possible to make one shastra comprise shastras.

Here there are verses, a reader of one shastra only, will certainly not understand that shastra. Hence that physician only who has heard many shastras can well understand that physician, who, having received the shastra, uttered from the mouth of his Gooro, and having studied it frequently, practises, he is a (real) physician, others indeed are robbers. The books called Oupudhenavany, Ourahrung, Sousdrutung, Pouskalavutung ; these are the roots of the other shastras of surgery, let (the physician) study them.

CHAPTER V.—Now here we shall explain the preliminary collection (of instruments.)

There are three kinds of operation. The preliminary operation, the chief operation ; the concluding operation ; we shall explain these, according to every disease. In this shastra, on account of the importance of cutting operations, we shall first explain cutting operations, and the things necessary for them.

Now here cutting operations are of eight kinds; namely, cutting, dividing, scarification, piercing, exploring (foreign bodies lodged) in the body, extracting the same, evacuating matter, stitching (wounds.)

Now, by a physician desirous of performing any operation, first, these things are to be collected, viz. instruments, knives, caustics, fire, probes, cupping *glasses*, leeches, two gourds, cauterizing needles, cotton rags, thread, leaves, silk, honey, ghee, fat, milk, oil, delicate food, decoctions, plasters, extracts, fans, cold and hot water, boiling pots, &c., and also assistants, attentive, steady, and strong. Then, in an auspicious lunar day, and lunar half day, and hour, and mansion of the moon, and having worshipped fire, the Brahmins, and the physicians, by milk, by whole rice, by drink, and by jewels, having caused the diseased person to sit with his face to the east, and having restrained him, he (the diseased person) having made a proper enunciation of the muntras, and having eaten light food, then the physician, having his face to the east, and avoiding the vital parts, the nerves, sinews, joints, bones, canals, let him introduce the knife regularly, according as matter is visible, at once let him lift up the knife quickly. But in large abscesses, two fingers, or three fingers, is the extent for the knife.

Then thus large, of equable surface, well circumscribed, these are the good qualities (of abscesses.) Here is a stanza, extensive, large, well circumscribed, not connected (with any vital part), having found a good time, the abscess, (with those properties,) is fit for operation. Boldness, quickness in work, sharpness of knives, want of perspiration, of trembling, and of ignorance in a physician, (all this) is fit for an operation

And one inflammation being uncured, (the physician,) having perceived (this,) by his internal perception, let him make another inflammation, (by counter-irritation.)

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* The original of this work is now printing by the Committee of Public Instruction.

Here is a verse, whenever (the physician) may know a fistula, and whenever also there exists a deep ulcer, there let him make a (contra irritation,) inflammation, then disease will not remain.

Now, an oblique incision is directed (to be made) in the eyebrow, the cheek, the temple, the forehead, the eyelid, the lips, the gums, the armpit, the abdomen, and the groin, a wise (physician), may cause, make a lunar or solar incision, (circular), in the hands and feet, and a semi-lunar form also, in the anus and penis.

On the other hand, by cutting the vessels and sinews, (there will be) excessive pain, and the heating of the inflammation, and the production of the root of the flesh, (granulations will take place), with much delay. In unnatural presentation of the fœtus, abdominal disease, hæmorrhoids, calculus fistula in ano, and diseases of the mouth, let (the physician) perform his operation on an empty stomach ; having placed the knives in cold water, and having seated the patient, and having pressed all round with his finger, and having cleaned the sore and washed it with (medicinal) decoctions, having taken up water in lint, let him introduce a tent composed of (various medicines), and thickened by til-seed extracts, honey, and ghee, and having applied a thick bandage, not too oleaginous, and not too rough, let him tie it with a cloth roller, and let him scent (the room) with paint and rukshus destroying perfumes, and let him perform the patient's preservation by rukshus destroying muntras. Then let him fumigate with fumigations from the powders of Bdellium agallochum, Saa resin, orris root, white mustard mixed with salt, and neem leaves, added to ghee. By ghee, without any thing else, he may preserve the life (of his patient.) Then, having taken water from a water pot, sprinkling it, let him perform the business of preservation from rukshus.

Verse.—For the sake of destroying magic and also the fear of rukshuses I will perform the business of purification, may Brahma agree to this. The snakes, the pishachas, the rundharvas, the yarkshas, the gakshashas, which ever approach thee, may Brahma and the others kill them always, may the night-walking (goblins) who walk in the earth and in the sky, and let those who inhabit the quarters and houses being saluted by thee, preserve thee, may the moonis, the Brahma Rajarshees and the Debya Rajarshees preserve thee, also, and the mountains and the rivers all (of them) and all the oceans, may the fire preserve thy tongue, and may the wind preserve thy life, the moon (preserve) thy vital spirit, may Indra preserve thy breath, may the lightning preserve the air in thy throat, may the thunder cloud preserve the air of digestion, may Indra, the lord of strength, preserve thy strength, may Menu thus preserve the two sides of thy neck and thy mind, may the Gaudharvas preserve thy desires, may Indra preserve thy quality of goodness, king Varuna (preserve) thy knowledge, may the oceans preserve the circle of thy navel. The sun thy eyes, the quarters thy ears, may the moon preserve thy mind, may the mansions always preserve thy beauty, the nights thy shadow, augeant aquæ semen tuum, and may the medicines (preserve) thy hair, may the æther preserve thy orifices, may the earth preserve thy body, may the fire preserve thy head, may Vishnoo preserve thy strength, may Poorooshashrestah, most excellent of men, preserve thy manhood, Brahma thy soul, the north-pole star thy two brows, may those eternal deities (be) particularly in thy body, may they for ever preserve thee, and mayest thou attain long life, may Lord Brahma (produce) thy preservation, may the Devas make (thy) preservation, may the moon and sun make (thy) preservation, and also Nuruda and Purbuttee (cause) preservation, may fire also (make thy) preservation and wind, and also the gods, companions of Indra, may the preservation made by Brahma cause thy preservation, and may thy life be extended, may the* sixtuple calamities perish (with respect) to thee and may pain always be absent.

Here is salutation. By those muntras which are of the essence of the Vedas and which destroy magic and diseases, and by me mayest thou, whose preservation is thus made, obtain long life.

Then having caused the patient to enter his house (the physician) will direct (him according) to rule. Thereupon on the third day having opened the wound let him bind it with a cloth bandage. Let not any hasty person open it, on the next day to the operation. By opening on the second day, the separated inflammation unites slowly and becomes very painful. But, after that let the physician, having considered the pus, the season, the strength et cætera, appoint astringents, liniments, bandages, food, and regimen, let not a hasty person heal up the sore; having pus in its interior, he having made an internal abscess by a very little irregularity of (treatment) will alter (the sore) very much.

Here are verses on this account, let him cure a well cleansed sore both within and without; with a healed sore let him avoid indigestion, fatigue. Venus and such like joy, anger, fear, during the existence of much hardness, at the time of snow and in

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* The original word is Eelee, which it appears, comprehends the following six national calamities, "Drought, excessive rains, rats, foreign invasion, foreign conquest, swarms of birds." It appears a strange classification.

cold weather and in spring also let the wise man open (the bandages) after three days; and in autumn, summer, and the rains let him do so after two days.

In every violent disease let the physician attend to this rule, as quickly as in a burning house, let him there do what is necessary to be done. Whatever violent pain is produced by the application of the knife when a person's body is tortured, the patient will obtain tranquillity (when) sprinkled with tepid ghee compounded with liquorice roots.

Unsatisfactory as the above directions may appear, some rays of light will yet, by careful examination, be found to emanate from the general darkness. The direction for making a wide opening to deep seated abscesses, and preventing their too suddenly closing are not amiss. The comparative mildness of the Sanscrit dressings appears to advantage when contrasted with the cruelty of European surgery even to so late a period as the middle of the seventeenth century, and before we ridicule too severely the muntras for the averruncation of Rukshuses, we must recall to mind the famous sympathetic powder which healed wounds in Europe, not by being applied to the patient, but to the axe or sword by which the wound was inflicted, and the more horrible and still more irrational trials for the infliction of disease, by witchcraft*.

The London Medical
AND
Surgical Journal.
Saturday, June 25th, 1836.

POOR LAW MEDICAL CONTRACTS—THE CLUB SYSTEM—THE TENDERS OF WORTHLESS PRACTITIONERS.

The atrocious system pursued by the Poor Law Commissioners—for it is to them, and not to the Boards of Guardians, that we are indebted for the outrages upon humanity which characterise the poor law medical contracts—is becoming every day better understood and better appreciated. Their determination to reduce the poor rates, at the expense not only of the comfort, the little comfort, the poor at the best may enjoy, but at the sacrifice of human life itself, can scarcely be contemplated without horror. We had thought, that when they had placed in the hands of the Board of Guardians the power of electing medical officers to the poor, that the system could "no farther go:" we had thought that the profession, and the poor, had been sufficiently trampled on, when such power was delegated to a set of men generally of inferior education, of contracted minds, and heartless in economy: we could not conceive that a more refined system of cruelty could have been adopted, than that of holding up to the lowest bidder, however unqualified he might be, an office so responsible as that of the medical attendant upon the poor. The consequences of such a measure were, we thought, sufficiently unfortunate. But we were mistaken; the tyranny of the commissioners, and degradation of the profession, had yet to be more fully and completely evinced. Yes, the Board of Guardians, under the *sanction* of the Poor Law Commissioners—we should say under their authority—have issued, since we last wrote on the subject, orders for medical men to submit to rules, which we trust, however, none will be found sufficiently lost to every sense of decency, as to obey.

The Board of Guardians in Stroud, have formed a club, by which they seek to compel the medical men of that district to attend, not only the poor and needy, but those who are able to pay, abundantly able, for the attendance of a practitioner in the just ratio he has a right to expect for his services. Yes, the Board of Guardians seek to compel the practitioners of Stroud to provide medicine and attendance, for one year, to respectable householders, their servants, and children, at two shillings each for a man and his wife, and sixpence each for subscribers under sixteen years of age. Could any system of despotism equal this? These cold-blooded assassins, or, as they are called out of mockery, guardians, seek to exercise control, not only over the poor, whom they are *legally*

* Vide John Bell's Principles of Surgery, vol. i, Sect. Disc. ii.

entitled to expose to the horrors of being subjected to the treatment of a worthless and heartless adventurer, but, proud of being drest in "a little brief authority," they seek to *legislate* for the more respectable portion of the community; they grasp for authority over the "independent artisans and labourers" of their district; and, above all, to sink the profession of medicine into the very meanest and disreputable of all callings. It could scarcely be thought for a moment, on first looking at the proposals we have above mentioned, that these guardian vampires intended to carry their plan into execution, but that they were merely urged by vanity to display their power—as ignorant, low-bred people in their situation might be suspected of doing. But when we find them persevering in their system, notwithstanding the universal burst of indignation with which their proposals were received, then we see in their plan of action a worse feeling, a feeling of direst malevolence, against the practitioner and the poor, to ruin one, and destroy the other. Upon what scale do these men calculate the medical practitioners of Stroud are to be paid? supposing in a family consisting of four persons, that two of them were ill for the space of only one week each, in the fifty-two that the medical man contracts to attend them. He visits them in ordinary cases daily; in more severe ones, he should pay two or three visits in the twenty-four hours; and for this, and supply of all necessary medicines, what at the best will be his remuneration? what will he be paid for his time and trouble? And yet this is nothing to the same members of a family being ill for two months in the twelve; what then is the rate of payment to the medical attendant? We cannot calculate it without feelings of disgust: the fraction of a farthing for a visit and medicine, is the noble reward of a highly educated man! The system of clubbing in the way sought to be established in Stroud, is a species of the dispensary humbug. We have known persons subscribe to a dispensary for the purpose of writing letters of recommendation to themselves, and they have been repeatedly patients, paying at the rate of a guinea a year for continual attendance, and a continual supply of medicine. This is a system infinitely superior to the club system; besides, if it were ever possible to find men so lost to every sense of honour, as to attend clubs so established, would there not be continual bickerings, continual discontents? would the patients ever be satisfied? We have no hesitation in saying that they would not—the practitioner would not have a *sinecure!*

But to return to the Stroud Union: eight of the practitioners in that town, with becoming spirit, have signed a protest against the club system, and have refused to meet in practice, those medical men who have so degraded themselves as to bow to the mandate of the Board of Guardians. This step has saved the reputation of the profession at Stroud, and, we trust, that such an example will be followed in every place, where a system of tyranny and oppression like the club system, is attempted to be formed.

Respecting the sums at which certain Unions have been taken by medical men, the mere enumeration of some of them here, will be sufficient to show in what way the duties *must* be fulfilled, and what sort of attendance the poor may expect. The Wheatenhurst Union, fourteen parishes, 8000 inhabitants, 100*l.*; the Docking Union, Norfolk, population 15,368, 200*l.*; North Aylesford, fifteen parishes, about 14,000 people, 180*l.*; and the Hambledon Union, sixteen parishes, 12,000 inhabitants, 110*l.*!! and yet, we are informed by a correspondent in whom we can rely, that in the Basford Union, Nottinghamshire—one of the districts containing 21,429 inhabitants—one of the sub-commissioners

thought 120*l.* per annum, for the performance of medical and surgical duties, and all necessary medicines, was too high!

A system of this character is revolting to the common feelings of humanity. The medical man who professes to give proper attention and medicines under such contracts, knows well enough he cannot do it; he knows, that when he accepts of the appointment, he has stamped perpetual degradation on himself, and that it is impossible to fulfil his contract. He knows that many must perish from neglect; and the Poor Law Commissioners, perhaps, do not forget that too!

Some remedies must be obtained for these outrages on humanity. It is no use appealing to the feelings of the Guardians, or to the justice of the Poor Law Commissioners. The Houses of Parliament must be petitioned on the subject—and petitions will be attended to *there*—and no doubt the petitioners will obtain redress.

HISTORY OF MEDICAL JURISPRUDENCE AND STATE MEDICINE.

The history of hygiene is coeval with the origin of society. The first wants of man were aliment, and he was instructed in what was salutiferous and noxious to his condition. He soon discovered the influences of exertion, repose, sleep, waking, &c., upon his constitution. The knowledge of the laws, morals, and police of the people relating to the preservation of health, constitutes public hygiene or medicine. It necessarily existed in the remotest ages. The ancients were of opinion that there was an intimate and mutual dependence between the moral and physical states, and of the necessity of enacting laws for the promotion of temperance and wisdom, as well as for the punishment of excesses and of crimes.

All eastern nations had their systems of medical police; we trace it in their legislation, their manners and customs, and in the rules of their public police.

The hygiene of Moses embraced three principal objects—the prohibition of certain aliments, ablutions for certain impurities, and the sequestration of certain diseases reputed contagious, as lepra, &c. The Levitical law (ch. xiii, xiv), commanded the priests to visit the houses infected with the plague of leprosy, or with other contagious disease; to examine the inhabitants, to establish quarantine, to purify the houses, to shut them up and pull them down in certain cases. We find in Deuteronomy, ch. xxii, that in questions of doubtful virginity, the elders were to be consulted, and enjoined to deliver judgment according to the physical evidence of the case.

It is easy to conceive the object of legal purifications in warm climates, where the tendency of animal foods to putrefaction, and the copious perspiration of the people, were the causes of insalubrity, which frequent ablutions destroyed. The chief hygienic means of the ancients, in addition to those already mentioned, were gymnastics, baths, and repose after the latter.

The principal rules relative to public police among the ancients, referred to the salubrity of habitations, the locality of towns, cities, and streets.

The Father of Medicine wrote a Treatise on Air, Water, and Situation, and this work has influenced all civilized nations for nearly 3000 years*. It led to the draining of marshes and improvement of situations. Most persons know that the Roman emperors, Julius and Augustus Cæsar, ordered the Pontine marshes to be dried; to which Horace alluded—

"—— Sterilis diu palus, aptaque remis
Vicinas, urbes alit, et grave sentit aratrum."

Hygiene was, as already observed, cultivated long before the time of Hippocrates, and the rules regarding it were deduced from the universal laws of the animal economy, and referred to age, constitution, intelligence, to wants or pleasures.

Moses enforced laws as to the use of all aliments, fruits, grains, herbage, bread, milk, fish, flesh, wine, &c.

According to Herodotus, the Egyptians invented beer, which was subsequently mentioned by Moses†, and they were the most healthful individuals. The Egyptian law ascribed to Menes, ordained, according to Plutarch, that no pregnant woman should suffer afflictive punishment. The Jews made a distinction between mortal and dangerous wounds; and had laws relating to virginity, marriage, adultery, embalming and interring the dead, and other subjects of public medicine. Joseph found the Egyptian priests physicians, and he ordered his father's body to be embalmed.—Gen. i, 6, B.C. 1747.

The ancient Greeks highly estimated the power of morals in preserving health and perfecting the species; and we find this opinion prevalent in all ancient nations. Their primary object was to give to the

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* Hippocrates flourished and wrote before Christ, 460 years.

† Leviticus, ch. x; Numbers, ch. vi.

country a robust people and vigorous defenders. It was this principle that gave origin to customs, which, in our time, appear to be inhuman and barbarous. Thus the destruction of delicate infants by the Spartans—a horrible custom of the Chinese at present, with respect to their female offspring.

The laws of Lycurgus on the physical education of infants and of girls to the time of marriage, with a view of transmitting a good constitution to their offspring, and many more hygienic ordinances, afford ample proof of the state of public medicine among the ancient Greeks. The physical legislation of Pythagoras and Plato was also intended for the conservation of the public health.

It is remarkable, however, that there are scarcely any traces of the union between law and medicine in the works of the ancient Greek physicians. There is some portion of hygiene and state medicine scattered through the voluminous writings attributed to Hippocrates; and some crude speculations on the nature and growth of the infant, the period of pregnancy, and he abolished some rude obstetricy. The opinions of the father of physic on the perpetuation of the species, the animation of the fœtus, and on many other physiological questions, had great influence on all ancient legislators. Those of Aristotle have had a like tendency, and even to this time. Both these authors held that the fœtus was inanimate in the womb for a certain time, during which it was no crime to cause abortion. The canon law was founded on this opinion, and has influenced all legislators to the present period*. The above authorities also maintained that pregnancy might be protracted beyond the ordinary term of nine months, which is now the received opinion of physiologists.

Medical men, both among the Greeks and Romans, were consulted by the magistrates most frequently on questions of medical police, as on the salubrity of cities, and on the means of assuaging the virulence of epidemic diseases; and to subjects of that nature the public functions of the *archiater*, or state physician, were confined in the lower ages of the empire. That they were summoned to give evidence in a court of justice nowhere appears; and had they been called, their testimony, in ages when human anatomy was proscribed, must, in a majority of difficult cases, have been of comparatively little value.

The laws of ancient Rome were chiefly enacted on the same grounds as those of Greece; but they embraced more important medico-legal questions. In the reign of Numa Pompilius, before the Christian era 600 years, and 140 before the time of Hippocrates, it was enacted, "de inferendo mortuo," (lex regia) that the bodies of all women who were in the last months of pregnancy should be opened immediately after death, so that the infants might be saved if possible. History also informs us that the elder Scipio Africanus, Marcus, Manlius, and the first Cæsar*, were brought into the world by incision of the abdomen, or gastro hysterotomy; and hence the origin of the term Cæsarian operation. It was also enacted in the Twelve Tables, A.C. 452, that the infant in the mother's womb was to be considered as living, and all civil rights secured to it. The legitimacy of an infant was limited to 300 days after the death or absence of its putative father, or within ten months of the supposed time of impregnation; but the period was afterwards extended to eleven months. Most of the Roman laws were framed in accordance with the opinions of the ancient philosophers and physicians, and many legal decisions were given—*propter auctoritatem doctissimi Hippocratis.*

Several laws were constructed during the reign of Severus, Antonine, Adrian, and Aurelius, on the authority of Hippocrates and Aristotle; the crime of procuring abortion was limited to those cases in which the fœtus had exceeded forty days, as before that time it was not considered a living being; and the Emperor Adrian extended the term of pregnancy from ten months—the period of legitimacy according to the Decemvirs—to eleven, in accordance with the physiological opinions of the times†. It is also recorded by Suetonius, that the bloody remains of Julius Cæsar, when exposed to public view, were examined by a physician named Antistius, who declared that out of twenty-three wounds which had been inflicted, one only was mortal, which had penetrated the thorax between the first and second ribs. Gerike has collected some curious instances of the inspection of murdered bodies by medical witnesses, from the writings of Suetonius, Tacitus, and Plutarch. The body of Germanicus was also medically inspected, and, by indications conformable to the superstitions of the age, it was decided that it had been poisoned‡. The bodies of Agricola and others were also examined by physicians, according to Tacitus.

It does not appear that there was any positive law which required the inspection of wounded bodies by medical practitioners, or that legislators required medical opinion before making laws. It ishowever recorded

* The present law of this country awards a different punishment against the perpetrators of abortion before and after quickening.

* Plin. Hist. Nat. l. vii.
† Foderè. Introduction, p. xiv.
‡ Foderè, op. cit.

that before the time of Philumenos, A.D. 80—who first studied obstetricy at Rome—the midwives were ordered by the prætors to examine pregnant women in judicial inquiries. Augustus had previous favoured the profession of medicine, A.D. 10, and exempted its members from public burthens and taxes. About 100, valetudinaria and veterinaria were established in the Roman camps, for wounded soldiers and horse*.

Galen was born in 131, and was physician to the gladiators at Pergamos, A.D. 159. He alluded to some questions of legal medicine; he remarked the difference which subsists between the lungs of an adult and the fœtus; admitted the legitimacy of seven months children, and offered remarks on the manner of detecting simulated diseases. He related the case of a Greek lady who escaped punishment for adultery on the opinion of a physician. She had borne an infant very unlike the supposed father; and the physician accounted for this, by referring its resemblance to that of a picture which hung in the chamber of the mother.

The promulgation of the Justinian Pandects, A.D. 529, which laid the foundation of the legal codes of most of the modern states of Europe, may be considered the origin of the connexion between the sciences of law and medicine, or of forensic medicine. Under the titles, *De Statu Hominum; De Pœnis et Manumissis; De Sicariis et Veneficis*, of the *Lex Cornelia; De Inspiciendo Ventre custodiendoque Partu*, of the *Lex Aquilia; De Hermaphroditis; De Impotentia; De Muliere quæ peperit undecimo Mense*—some questions in medical jurisprudence are discussed; but the decisions of the judges were directed to be guided on such matters, not on the oral testimony of living physicians, examined on the particular point then under consideration, but *propter auctoritatem doctissimi Hippocratis.*

If the Justinian code was an improvement in many respects on more ancient usages, in *one* point of medical jurisprudence, it must be allowed to be more erroneous than that which preceded it, namely, on the time of utero-gestation.

Aulus Gallus informs us, that a decree of Adrian acknowledged the legitimacy of a child born eleven months after the death of its reputed father; and this period has been adopted by Justinian, (Novella 39. c. 2, Nov. 89).

From this period to the year 555, the Roman empire was overrun by the Goths and Vandals. The most savage customs now prevailed in the west of Europe, the principles of legal medicine were totally neglected, and the trial by the ordeals of fire, water, and duel, were introduced as appeals to the Deity, in cases which, to rude minds, appeared above human investigation.

"The trials by ordeal in the dark ages of modern Europe, when the decision of the most important questions was abandoned to chance or to fraud, when carrying in the hand a piece of red hot iron, or plunging the arm in boiling water*, was deemed a test of innocence, and a painful or fraudulent experiment, supplanting a righteous award, might consign to punishment the most innocent, or save from it the most criminal of men, have ever been deemed a shocking singularity in the institutions of our barbarous ancestors. We are ready to admit the justice of this charge generally; and yet we fancy that, upon some occasions, we are enabled to discern through the dim mist of credulity and ignorance, a ray of policy that may have been derived from the dawning of a rude philosophy. Trials by ordeal, as we are informed by Mr. Mill, hold a high rank in the institutes of the Hindus. It appears that there are no less than nine different modes of trial, but that by water in which an idol has been washed, and the one by rice, are those which we shall select, as well calculated to illustrate the observations which we shall venture to offer.

"The first of these trials consists in obliging the accused person to drink three draughts of the water in which the images of the sun and other deities have been washed; and, if within fourteen days he has any indisposition, his crime is considered as proved.

"In the other species of ordeal alluded to, the persons suspected of theft are each made to chew a quantity of dried rice, and to throw it upon some leaves or bark of a tree; they from whose mouth it comes dry, or stained with blood, are deemed guilty, while those who are capable of returning it in a pulpy form, are at once pronounced innocent.

"When we reflect upon the superstitious state of these people, and at the same time, consider the influence which the mind, under such circumstances, is capable of producing upon the functions of the body, it is impossible not to admit, that the ordeals above described are capable of assisting the ends of justice, and of leading to the detection of guilt. The accused, conscious of his own innocence, will fear no ill effects from the magical potation, but will cheerfully acquiesce in the ordeal; whereas the guilty person, from the mere uneasiness and dread

* Hospitals were first established in Jerusalem, by Eudocia, wife of Theodosius, A.D. 440; but medical practitioners did not attend their inmates.

* Priests were among the earlier chemists, and it is asserted, that they frequently instructed the accused, either from a conviction of his innocence, or from less disinterested motives, in some of those means of resisting the action of fire, by which modern jugglers are still enabled to amuse and astonish the vulgar.

of his own mind, will, if narrowly watched, most probably discover some symptoms of bodily indisposition, before the expiration of the period of his probation. In the case of the ordeal by rice, a result, in correspondence with the justice of the case, may be fairly anticipated on the soundest principle of physiology. There is, perhaps, no secretion that is more immediately influenced by the passions than that of saliva. The sight of a delicious repast to a hungry man is not more effectual in exciting the salivary secretion, than is the operation of fear and anxiety in repressing and suspending it. If the reader be a medical practitioner, we refer him for an illustration to the feelings which he experienced during his examination before the medical colleges; and if he be a barrister, he may remember with what a parched lip he gave utterance to his first address to the jury. Is it then unreasonable to believe, that a person under the influence of conscious guilt, will be unable, from the dryness of his mouth, to surrender the rice in that soft state, which an innocent individual, with an undiminished supply of saliva, will so easily accomplish?"—*Paris and Fonblanque.*

It was supposed, even in this country, that the agitation of a murderer, on seeing his victim, was sufficient to prove his guilt; and, in some cases, he was obliged to place his hand on the dead body. It is also a popular opinion, that the countenance of a murdered corpse will change when gazed on by the murderer, or any of his near relatives. The following extraordinary cases are noticed by Dr. Beck, from Hargrave's State Trials, vol. x, Appen. p. 29 — reign of Charles II:—

"An ancient and grave person, *minister to the parish where the fact was committed*, being sworn to give evidence, according to custom, deposed, 'that the body being taken up out of the grave, thirty days after the party's death, and lying on the grass, and the four defendants being present, were required each of them to touch the dead body. Okeman's wife fell upon her knees, and prayed God to shew tokens of her innocency. The appellant did touch the dead body, whereupon the brow of the dead, which before was of a livid and carrion colour (in terminis *the verbal expression of the witness*), began to have a dew, or gentle sweat arise on it, which increased by degrees, till the sweat ran down in drops on the face; the brow turned to a lively and fresh colour; and the deceased opened one of her eyes, and shut it again; and this opening of the eye was done three several times. She likewise thrust out the ring or marriage finger three times, and pulled it in again, and the finger dropped blood from it on the grass.' Sir Nicholas Hyde, chief justice, seeming to doubt the evidence, asked the witness, 'Who saw this besides you?'—Witness. 'I cannot swear what others saw. But, my Lord (said he), I do believe the whole company saw it, and if it had been thought a doubt, proof would have been made of it, and many would have attested with me.' Then the witness, observing some admiration in the auditors, spake further, 'My Lord, I am minister of the parish, and have long known all the parties, but never had occasion of displeasure against any of them, nor had to do with them, or they with me; but as I was minister, the thing was wonderful to me. But I have no interest in the matter, but as called upon to testify the truth; and this I have done.' [This witness was a very reverend person, as I guessed, of about seventy years of age. His testimony was delivered gravely and temperately, to the great admiration of the auditory.] Whereupon, applying himself to the chief justice, he said, 'My Lord, my brother here present, is minister of the next parish adjacent, and I am sure saw all done that I have affirmed.' Therefore, that person was also sworn to give evidence, and did depose in every point—'the sweating of the brow, the change of the colour, thrice opening the eye, the thrice motion of the finger, and drawing it in again:' only the first witness added, that he himself dipped his finger in the blood which came from the dead body, to examine it, and he swore he believed it was blood. I conferred afterwards with Sir Edward Powell, barrister at law, and others, who all concurred in the observation. And for myself, if I were upon oath, can depose that these depositions (especially the first witness) are truly reported in substance.' "—p. 29.

"In the trial of Standsfield, for the murder of his father, a similar charge was brought. It is stated, that when the son was assisting in lifting the body of his father into the coffin, it bled afresh, and defiled all his hand. The opposite lawyers observe, that 'this is but a superstitious observation, without any ground either in law or reason. Carpsovius says, he has seen a body bleed in the presence of one not guilty, and not bleed when the guilty were present.' They assign, with great probability, as the cause of this bleeding, the fact, that the surgeons had made an incision about the neck, and that the motion of the body, in removing it, caused the fresh hæmorrhage from that part." (vol. 4, p. 283.) I will refer those who are curious on this subject, to Metzger, p. 328; and Valentini Novellæ, App. 3. *De stillicidio sanguinis in hominis violenter occisi, cadavere conspicui, an sit sufficiens præsentis homicidæ indicium?*

The many causes of sudden or suspicious death, could be very imperfectly discovered, even by medical practitioners, in the dark ages, when prejudices and superstition prevented the study of anatomy. It was no sooner than the year 1315, that Mondini

gave the first public demonstrations on the human subject in the University of Bologna; and it was not until 1334, that human dissection was permitted in France, in the celebrated medical school of Montpellier. About this period, Frederick II. of Naples authorized one annual dissection in his capital. This legalization of anatomy was the revival of medical science in Europe.

The first cases in which medical witnesses were summoned to assist the judge, were after the establishment of the Inquisition by Pope Innocent III. A.D. 1204, when torture was inflicted to extort confession. This mode of arriving at truth was too favourable to screen the indolence or incapacity of the judges not to be adopted by other tribunals. Accordingly the rack, and other modes of inflicting the extreme of suffering compatible with life, passed into the codes of almost all European nations, from which they are not yet altogether expunged; and medical men were summoned by the tribunals to superintend these horrible scenes, to mark how far fiend-like ingenuity could protract human sufferings, without allowing to the victim the last refuge of human misery. Accordingly, we read in the works of the early medical jurists, observations on the mode of applying the torture in criminal trials.

It is humiliating to acknowledge, that even now a species of torture is enforced by British laws in the army and navy, and in civil cases, by means of the treadmill, too often, it is to be feared, without proper discrimination of age, sex, or state of health.

(*To be continued.*)

Clinical Reports, with Reflections. By E. Geddings, M.D., Editor of the North American Archives of Medical and Surgical Science.

(*Case of Hæmatemesis, concluded from p.* 672.)

Autopsy, by Dr. Wm. N. Baker. — About a gallon of limpid water in the abdomen; peritonæum unusually blanched. The external surface of the colon and cæcum presents a dark cerulean aspect, occasioned by the blood contained within. The liver exceedingly indurated and tuberculated throughout—spleen enlarged, and tough in its conexture, but drained of its blood. The liver and spleen firmly united to each other, to the stomach, the peritonæal covering of the diaphragm, and the abdominal parietes, by dense bands of psuedo-membrane, in some instances covered by vessels. The whole of the pancreas indurated. The mucous membrane of the stomach and whole alimentary tube presents, at different points, patches of inflammation, *noi receni?* The mucous membrane of the cæcum and ascending colon presents a fine display of follicular inflammation, but no ulceration. The small intestines contain a considerable quantity of mucus, tinged with bile. The large intestines contain fœtid blood, mixed with fœcal water. The mesenteric glands all enlarged. Lungs healthy.

It is proper to remark, that the provisions of the ship in which this man returned to this country, were nearly or entirely exhausted near our coast; that the ship's crew were almost literally starved; and that this man had been indulging to great excess for eight or ten days before his admission into the Infirmary.

Remarks.—This case presents many interesting traits, and we regret, that not having had the treatment of it, or an opportunity of observing its progress, we are unable to offer an analysis of its principal characters and phenomena. The association of gastric and intestinal hemorrhage with induration and tuberculation of the liver is an important feature in the case. But, as the mucous membrane of the stomach and intestines, and the mesenteric glands, were likewise extensively diseased, it becomes a question, in what relation the several lesions should be considered with the effect produced —the hemorrhage from the stomach and bowels. Whatever may have been the origin of the disease, the mucous membrane of the stomach and bowels unquestionably constituted the *foyer* of irritation which was instrumental in exciting the hemorrhagic action; but from the extensive evidences of disease in the other abdominal organs, there is every reason to believe, that they likewise may have had some participation.

On the Fever that prevailed at Calcutta during the months of September, October, November, and December, 1833. By Frederick Corbyn, Esq., Garrison Surgeon, Fort William.

EPIDEMIC diseases are acknowledged to be intrinsically of more importance than other maladies. Besides possessing an adventitious interest from circumstances altogether singular and extraordinary, by which they are distinguished from every other disorder incidental to the human constitution, they become alarming and momentous from the greater number of persons they affect; their greater severity and more fatal consequences; the frequency with which they have recently appeared in the east, and with fearful violence spread to the most distant countries. The medical practitioner, anxious to discharge his duty in the cause of humanity, feels himself called upon to record his experience as to their cause, character, and treatment, and by developing every important fact, become the means of directing to their prevention and cure.

With this view of the duty I owe to my professional brethren, I do not hesitate to submit for their consideration the result of my experience on the fever which has lately prevailed at the presidency.

In denominating this fever epidemic, I beg to state that my view of what is an epidemic is the same as that taken by the celebrated Dr. Sims, who, in his Memoirs of the Medical Society of London, observes, that there are some grand classes of epidemics which prevail every year, and which are produced by the various changes of the seasons. Thus spring is accompanied by inflammatory diseases; summer by complaints in the stomach and bowels; autumn by catarrhs; and winter by intermittents. These being obviously produced by the state of weather attendant upon them, other epidemics are supposed analogous to them, and are according to universal consent obedient to the same rules.

The epidemic in question assumed at first that character of fever of which I have had some experience in the forest of Teraii, the jungles of Central India, and swamps of Arracan. It was preceded in most cases by general febrile phenomena assignable to no particular form or organ: when formed it was characterised by a violent pain in every part of the head; pains in the lower extremities; stretching of the whole length of the thighs and legs; pains in the small of the back; irritability of stomach; depression of spirits and apprehension of death. In some dysenteric stools was a premonitory sign, attended, in a few cases, with a sense of sinking, which induced a belief that the disease was cholera. In all there existed a sense of fulness, distension, and oppression at the scrobiculus cordis, accompanied by much anxiety. In some there was turgidity of the blood vessels of the eyes; and that singular expression of countenance which indicates mental aberration. The heat differed in many; in most there were exacerbations and remissions: in many the heat of skin was preceded by rigors, and terminated in cold sweats. The tongue was dry and parched, and a distressing complaint of thirst occurred in all. The pulse in many was feeble, rapid, and wiry; in more favourable cases full, and beating 120; the respiration quick and laborious. Some cases had that collapse of countenance which many would conclude was choleric. The whole system, however, depicted extreme prostration and distress.

Such was the character of the disease in September. In October a manifest change took place. There were more distinct premonitory symptoms; such as complaining of languor and fatigue and inaptitude to the least exertion: the eyes lost their wonted animation, the face became sallow, bloated, and dejected, the pain in the head heavy and dull. There existed always a sense of nausea, and in most cases a distressing retching, but nothing was brought off the stomach; others experienced great difficulty to retain any thing on the stomach, or after from 20 to 30 minutes' retention the contents would be ejected. A want of sleep, or disturbed slumbers, or frightful dreams was a general complaint. The tongue was at first white; in some yellow; in others brown; and in many there was a tendency to blackness. The pulse would change suddenly, from being hard and full, and become small, quick, and wiry; and in an hour or two full and hard again. Great heat in some cases followed rigors, terminating in moisture upon the skin. Towards the latter end of October, there were intermissions from 6 to 12 and 24 hours; the attack being suddenly ushered in by ague, followed by excessive heat, and terminating in profuse perspiration.

Almost all my patients complained of deafness and an unpleasant sound in the ears, like the roar of distant cataracts. There was invariably a disposition to great debility; and a want of appetite as well as nausea of the stomach remained for several days after the disease was subdued.

Such is the history of the fever which has prevailed during the last three months, and which continues to prevail in many parts of the presidency. In proceeding to trace the cause, we find, as invariably must be the case, opinion so variable and of so conflicting a nature as to leave this part of our inquiry in much obscurity. It has been assumed that the cause arose from the exhalations from the stagnant mass originating in the inundations which followed the gale in May last. The great objection to such a supposition is the distance of the inundated lowlands from Calcutta. Dr. McCulloch, however, has endeavoured to prove that malaria is more easily generated, and transported further than is commonly supposed; and that it is often present when unsuspected and neglected.

(*To be continued.*)

Marriage of a Dwarf.

A dwarf named Santiago, de los Santos, a native of Manilla, aged 49, and 25 inches in height, though his head is as large as that of a grenadier, was accompanied by his wife, aged 30, to Guildhall, before Alderman Winchester, to complain of a Spaniard, who defrauded her husband of 74*l.* She is also a diminutive creature, and measures only 36 inches in height. The wife, in reply to the alderman, said that she was a native of Birmingham; about two years ago, she heard of her husband, went to see him, fell in love, and married about two years since. They had one child, which died at birth.

THE

London Medical and Surgical Journal.

No. 23. SATURDAY, JULY 2. Vol. I.—(1836).

CLINICAL LECTURE
ON CASES IN THE NORTH LONDON HOSPITAL.

Delivered in June, 1836.

BY PROFESSOR ELLIOTSON.

The first case we have to speak of to-day, is one of LEPRA VULGARIS. You may not probably well remember the case, as the patient has left the hospital some time; we have, however, another case very similar in the house at present: it will be advantageous for you to watch its progress. The first case is that of Charlotte Thorinton, a young girl aged sixteen. Now, it is very common for this disease to attack young females, somewhere about this age; the case in the house now, occurs in a girl twelve years old. This species of *lepra* often comes on in persons in a good state of health. Our patient Thorinton, by the reports, appears to have always enjoyed good health till about a month ago, when an eruption appeared on the anterior surface of the legs, and still continues there, but is also appearing now on the arms, near the elbows. The eruption is described in the report; it is not only scaly, but circular, with red and elevated margins, but has a disposition to heal from the centre. It is sometimes difficult to distinguish this disease in its earliest stage; sometimes it begins with mere red papulæ, and there is no separation of the cuticle, not even so much as scurf being thrown off; afterwards a little scurf is observed to form over the red spots; then scales are formed; by scales, we mean portions of diseased opaque cuticle which separate from the part beneath very readily, leaving a red thin cuticle beneath. In this case the spots were not large, none of them exceeding the size of a shilling; sometimes you will find the eruption in scales as large as a crown-piece, and occasionally the leg or arm appears one large scale. You will often find that there is pain in the head, throbbing, and giddiness, though the patient do not complain of these symptoms. This girl had pain in the head, especially over the forehead; it got worse by sitting near the fire, or taking warm or stimulating drinks; she has much flatulence; bowels rather confined; tongue very foul; pulse full, rather jerking, 108; menstruation regular; has leucorrhœa occasionally; sore throat; complains of chilliness. She was bled on the 26th; she was admitted here on the 29th. In many of these cases there is often no apparent cause for the disease: it was so in this case: sometimes it may arise from the person drinking cold water when hot. We treated this case by BLEEDING AND ARSENIC; the bleeding relieved her head; you will generally find this is an inflammatory complaint, though when of a syphilitic character, it will not do to employ bleeding and arsenic, but mercury only; sometimes, when not syphilitic, it is not inflammatory. Of all medicines, when it is not syphilitic, arsenic is the best. On the 5th of April she wished to go home, and she left the hospital; the eruption was better, many scales beginning to fall away.

With regard to the employment of arsenic, you must not push it to large doses quickly; it is of so powerful a character, and acts in such minute doses, that it requires great caution in its administration, and it is necessary to watch its effects. Even if continued in very small doses, it will produce, occasionally, the first stage of gastritis; you will then of course immediately leave off the medicine. It often affects the eyes, sometimes produces heat, redness, and soreness of the throat, and œdema of various parts of the body; of course you will omit the medicine when any of these symptoms appear. The disorder of the stomach, which is produced by arsenic, is of very long continuance. I know a lady who took arsenic ten years since, and she has never recovered from the effects it had on the stomach. The next is an instance of a disease somewhat similar to the above, but more inflammatory, viz.

Psoriasis;

which is the link between lepra and eczema herpes, and those diseases in which there is a watery matter under the cuticle. This affection consists of scales, as in lepra, but

instead of being round they are oblong; their margins are not elevated, and when the parts begin to heal, they heal from the sides, and not from the centre, as is the case in lepra; there are also splits and cracks in the scales in psoriasis, and if there is much irritation, a fluid exudes from them.

This disease occurs at all periods of life. The patient whose case we have to consider, is that of Eliza P., a girl aged sixteen. This affection often arises from drinking cold water, when the person is hot. It was so in this case. She was admitted April 28; she is a housemaid; has always been subject to headach; never menstruated. Last spring, having taken cold water when heated and fatigued, she became ill; the headach was increased, and she had pains in the loins. A month after an eruption appeared on the back of the hands, of a character similar to what she is now labouring under. She took aperient medicine, and it disappeared.

Six weeks since she again became ill, from imprudently drinking cold water, and ten days ago the eruption began on the backs of the hands, and soon extended up the arms, and afterwards appeared on the legs and abdomen. On the hands and arms it exists in large patches, of irregular form. On the elbows the patches are larger than other parts. On the legs and abdomen the patches are small, mere spots, nearly round. The eruption commences by a papulæ, which increase in size and number, coalesce, become scaly, and have fissures in them, margins not elevated; they heal from the circumference; they itch much, and discharge no fluid; her health has been better than before the eruption appeared. In lepra and psoriasis, the parts chiefly affected are the thick portions of skin on the back of the elbow, and just below the knee. The eruption in this case itched a good deal; there is more inflammation in psoriasis, than lepra, and consequently more irritation.

Treatment.—We bled her to a pound, and treated her antiphlogistically, by giving her blue pill five grains twice a day, and ordered her low diet. On the 1st of May we gave her three pills a day; the blood was buffed; she was bled again to ℔j. On the 4th the same; her headach was better, and the eruption better. On the 7th the eruption was very much improving, the scales exfoliating freely. On the 10th, her mouth was beginning to get slightly sore; feels very well; the eruption is disappearing.

On the 21st the eruption having disappeared, she was discharged cured.

This affection was treated as a simple inflammatory disease; mercury has no specific power over it, but it is a good remedy in inflammatory diseases, and that is why I employed it.

The next case is one of

Anemia,

from general want of blood in the body. E. M., aged 17, was admitted April 5; she is of delicate frame, leucophlegmatic; has always lived at home with her mother, and has never been subjected to hard work or bad living, but has never enjoyed good health for three and a half years past; menstruation having always been, and is still very irregular, occurring only once in six months, and then scanty, pale, and attended with pain. At the times the catamenia should have appeared, but did not, she had, and still has swelling of the legs, which pit on pressure: distension of the stomach, and headach. She has also been subject to various symptoms of indigestion, vomiting, gastrodynia, sour eructations, constipated bowels, anorexia, and palpitation of the heart. At present she suffers from a heavy pain in the stomach, worse after meals, which she often vomits, or any fluid; heat extending half way up the œsophagus. No tenderness on pressure over the epigastrium or any part of the abdomen. Shooting pain in the head, worse on sitting up; face and lips very pale; dark areola round the eyes; tongue foul; considerable thirst; skin hot and dry; urine scanty, and high coloured, pulse rather quick and jerking, 88; bowels constipated; light, hacking cough, and palpitation of the heart; lies with difficulty and pain, on the left side; no preternatural sounds to be distinguished in any part of the chest; slight œdema of the lower extremities towards evening; weakness in walking; she now keeps her bed; no symptoms of hysteria; sleeps well at night; little appetite.

Now, anemia generally takes place at a period of life when there should be new functions developed, as was instanced in our case. The shooting pain in the head complained of by this patient, was evidently not of an inflammatory nature, from the fact of her being worse when she sat up, and better when she lay down, as in the last case; there was more blood in the head, than in the other. Great thirst is very common in this affection, from the decrease in the quantity of saliva; there is generally, as in this case, deficiency of all the secretions of the body. You may be often deceived in the pulse, if you do not look at the habit of body of your patient; the pulse is often like that we find in hæmorrhagic patients—quick, jerking, but on pressing it, it is found to have no substance; palpitation of the heart is a very common symptom, as is also pain in the side; most young women are subject to it. It is purely nervous, in the generality of instances, though, if in the right side, it is considered to be disease of the liver; and if in the left, disease of the spleen, without any reason for such opinions. This case, I was quite certain, would get well, by means of iron; so, after the bowels had been

opened by house medicine, I ordered her two drachms of the carbonate of iron, three times a day. We began on the 6th; on the 12th, there was a little amendment; no pain in the stomach after meals now. Has rather more colour on the lips; the dose of the medicine was increased to half an ounce. On the 19th she was a great deal better, stronger, and able to sit up to needle-work, a great part of the day. On the 23rd continues well; lips and cheeks have nearly a healthy colour. On the 26th she was discharged, cured.

It is hardly necessary to dwell on the efficacy of

Carbonate of Iron in Anemia,

you have seen so many cases of it. Quinine does no good in these cases, but iron is a specific.

I shall now call your attention to two cases of

Epilepsy.

The first is that of Mary Ann K., aged 19, who was admitted Dec. 12. She is a fat plethoric young woman, maid of all work; has enjoyed good health until lately; though only 19 years of age, she has all the appearance of a woman of 30; she began to menstruate when she was eight years old. Her menses have always been scanty since the first time, and often irregular. For the last five years she has been subject to inflammatory headaches, for which she has lost blood by cupping, and the occasional application of leeches. She has suffered from indigestion for a long time; has bad appetite, and pyrosis. Five years ago, a young man to whom she was much attached, died, in consequence of which she suffered considerable mental distress; two years afterwards she met with an accident, dislocated her hip, and during the time she was in the Middlesex Hospital for that accident, she had several hysterical fits. She has lately had several epileptic fits, the last of which was nine months ago. Three weeks ago she lost her box of clothes, about which she fretted a good deal. She has had restless nights, and suffered from headach, with occasional vomiting, and loss of appetite. She has had frequently the globus hystericus. On Monday, the 7th, she got wet through, and her menses, which were on her at the time, were suppressed. On Tuesday her headach very much increased, and she had vertigo, tinnitus aurium, and confused vision, and between two and three o'clock she vomited blood, partly fluid, and partly coagulated and black. She says it amounted to about half a pint; she has vomited blood twice a day since, in large quantities; the vomiting is preceded by headach and vertigo, intense pain in the stomach, at the cardiac end, and heat in the throat; skin hot and dry, countenance flushed and florid; pulse full, and numbers 72, after bleeding; tongue moist and red; bowels regular. We bled her to fainting, and ten grains of calomel were ordered to be given directly, to be followed by an opening draught; and two minims of the hydrocyanic acid were given every four hours.

On the 15th, she had no vomiting of blood, but experienced considerable pain in the left hypochondrium. On the 18th a friend visited her, and she had two epileptic fits in the evening. On the 20th she had two more fits, after the visit of a friend. On the 22nd she still complained of pain and extreme tenderness under the left breast; the tincture of iodine was applied to the part. On the 23rd, she had two fits; on the 25th two; on the 26th two; we now began to treat the epilepsy, the stomach being in pretty good order. We gave her a quarter of a grain of the NITRATE OF SILVER, three times a day. On the 27th she had four fits; on the 29th two; on the 30th she had an attack of bronchitis, for which she was bled, and a blister applied to the chest; she had lost a good deal of blood before, but it was necessary to remove a small quantity; we took ℥ vj from her. On the 2nd of January she had two fits; the nitrate of silver was omitted; there were still signs of bronchitis; she was bled to fainting, and two grains of opium given afterwards, and five grains of blue pill every six hours. On the 4th she fell into a state of coma, in which she remained for half an hour; when she came to, she complained of a dreadful throbbing headach, the pain situated just over the eyes, and great exhaustion; during the state of coma, her pulse was full, and numbered 104. On the 5th she had two fits; the pain in her side is worse, the headach still very bad. She was bled to eight ounces, and a blister applied to the side; the blood was buffed. She had two fits almost daily. On the 11th the mercury was omitted, and we began with the nitrate of silver again, a quarter of a grain three times a day; on the 14th, increased the nitrate of silver to half a grain; on the 16th to a grain. She still continued to have two fits almost every day. On the 23rd of January we had increased the dose of the nitrate of silver to a grain and three quarters; this purged her, so we gave her some powder of kino, which stopped the diarrhœa. On the 26th we gave her two grains of the nitrate; on the 30th two grains and a half; on the 12th of February she was taking three grains and a half of the nitrate; the fits were much milder, but we had continued the medicine as long as we could safely do; so on the 16th we commenced with half a grain of the

Ammoniated Copper.

She had six fits the same day, four on the 17th, and three on the 18th. On the 19th of March, being no better, and as we had increased the dose to two grains and a half, and had to decrease it again to one grain; from her suffering from pain in the head,

heat of stomach, &c., we left it off, and gave her two grains of the

Sulphate of Zinc,

three times a day; it was increased on the 21st to four grains. On the 24th she complained of tingling of the surface, feeling as if her "blood were all of a crawl." Had not any fits yesterday; she had two on the 22nd; she comes out of the fits laughing. On the 26th she took six grains; on the 2nd of April eight grains. You will perceive I increased the dose two grains at a time; you can increase this medicine in this manner; I should not like to increase the copper or silver more than half a grain at a time. The fits were changed to a more hysterical character; we had certainly gained a step in improvement. On the 5th the dose was increased to ten grains; the effects continued; on the 9th increased to twelve grains; on the 12th to fourteen. On the 14th, as she was sick after the pills, she was obliged to omit them. On the 19th we renewed the medicine in small doses, giving four grains three times a day. On the 21st the report states that she has had no fit for three days. On the 23rd, one slight fit yesterday; feels quite well, and shews the same disposition to merriment after the pills, and a propensity to dance. This merriment begins about half an hour after each pill, and continues for an hour. No fit on the 24th, 25th, or 26th; has some tenderness of the epigastrium, and feels slightly sick after the pills; still merry, and disposed to dance. The dose of the zinc was reduced to three grains. She had a slight fit on the 27th; convulsions very feeb e; it rather resembled a fainting fit. You will perceive that though we had before given her as much as fourteen grains without any ill effect, that afterwards she could not take more than five grains without producing great irritation to the stomach. On the 12th the report states that she has had only one fit since the 6th, on which day she omitted the pills. She had no fit from the 12th to the 17th; she had no fit up to the 25th, on which day, having very much misbehaved herself, she was discharged. If the disease was not cured, there was certainly a remarkable suspension of the fits.

We have one more case to speak of; like the last, it withstood all the remedies we employed, and then gave way to a single one.

Eliza M., aged 17, was admitted Feb. 17; of a pale, leucophlegmatic appearance. Four months since was attacked with fits, after pain in the head, dimness of sight, and singing in the ears, intolerance of light and noise. The fits at first were mild, but have gradually increased both in severity and frequency. She has now three or four daily, lasting sometimes half an hour; convulsions very strong, but she does not foam at the mouth much, nor always, nor are the pupils, which are naturally large, altered; coma, of very short duration; quite insensible during the fits, and a slight degree of trismus, remains for some minutes; her head aches constantly; pain at the epigastrium; tongue white; pulse frequent, 96, full, soft; bowels confined; has not menstruated for three months; surface of the body occasionally tender; a sensation of dragging is experienced in different parts of the body. Sometimes she has a short, dry cough. No auscultatory preternatural sounds. She had a fit a few minutes after admission, in consequence of seeing a patient in the same ward attacked with one. I thought at first, from the account I received; that the fits were hysterical, but Mr. Tayor saw her in one of them, and was convinced they were epileptic. Her head ached, and her face was flushed, and Mr. Taylor ordered her to be bled to ℥ xvj. This had the effect of diminishing the excitement, and she became very pale; and I had no hesitation on the very next day, in giving her the carbonate of iron; she had several fits, but felt better. We continued the iron until she got warmer and redder, having lost all appearance of bloodlessness. The inflammatory state of the head passed off by the bleeding; it was then safe to give iron; we increased the dose to ℥ iv. There was no abatement in the fits; if anything they were rather worse; her general health, however, improved. I was going to send her out as incurable, when a gentleman mentioned that a German physician had recommended Dr. Thomson, to use the artemesia absinthium in these cases. We began on the 30th by giving her a drachm of the powder, three times a-day; the iron was omitted. On the 4th of April the fits seemed rather less violent. On the 5th the dose was increased to a drachm and a half; on the 9th to two drachms; on the 12th she had a fit daily, not less sevese. We got her, by some persuasion, to take the medicine four times a-day; and on the 16th every four hours; she had no fit on the 19th, 20th, or 21st, only one slight fit on the 28th; on the 3rd of May, no fit since the 28th; on the 13th no fit for a fortnight; on the 17th none since last report. She went out on the 24th, having had no fit up to that time. I should think it better to give it in the form of infusion, which might be made as strong as you please—it would be much less nauseous. I am glad this is not a *new* medicine I am recommending you to try.

PATHOLOGICAL OBSERVATIONS ON THE DISEASES OF THE PLACENTA.

Part I.—Congestion and Inflammation.

BY JAMES Y. SIMPSON, M.D.,
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(*Read before the Royal Medical Society, November* 20, 1835.)

(*Continued from p.* 678.)

Changes in the Blood Effused.—In internal placentary hæmorrhage or ecchymosis, the blood after its effusion undergoes a variety of changes, interesting in themselves, and important in this respect, that a misconception of their nature has, as it appears to me, led pathologists into error in regard to the nature of some of the lesions occasionally observed in this organ. When the blood is poured out from its containing vessels into the substance or cells of the placenta, or between the membranes, it gradually coagulates and assumes a very dark purple, and sometimes (as I have seen it in two preserved specimens*) almost a melanotic black colour. After a time, however, it begins to lose this tint, the colouring matter gradually becomes removed, and the coagulum successively assumes a chocolate brown, a reddish or brownish yellow hue, and latterly, if time sufficient is allowed, it presents a pale yellowish white or straw-coloured substance, the fibrinous portion of the coagulum being then alone left. When these fibrinous and generally firm and indurated masses are divided, they for the most part exhibit internally a dense-like uniform or homogeneous tissue; but in some cases where the individual mass or coagulum has been formed by several successive effusions of blood occurring at the same point, and probably from the same vessel, its section shews a more or less perfect concentric laminated structure. M. Cruveilhier* has represented an ecchymosed placenta in which the structure of the coagulum appears to be concentrically laminated in this manner, and the more external layers are seen to be losing their colouring matter, while the nucleus of the effusion is composed of darker and more recently effused blood. I have not had an opportunity of observing these changes in specimens of laminated placental coagula, but have had repeated occasion to remark the discoloration of the more common single or homogeneous coagula proceeding from their circumference to their centre.

In the blood effused in placentary hæmorrhage, I have been able to trace a change still more advanced than that of its discoloration and conversion into a yellowish straw-coloured fibrinous mass. In four instances I have seen these fibrinous masses in different parts of the same placenta, contracted to a size considerably less than the space which they originally occupied, and consequently appearing, as it were, to be contained in cavities which were only but partially filled by them. This appearance is particularly well seen when the blood has been extravasated towards the fœtal surface of the placenta, or behind the chorion and amnion, and when it has protruded towards these membranes in the form of the eminences or nipple-like projections, already alluded to. In such cases, after the colouring matter of the effused blood has been removed, and time is given for the fibrinous masses which are left to contract, the folds of the chorion and amnion, which they had carried before them, being inelastic membranes, remain in the position in which they were placed, and present themselves, when the ovum is afterwards examined, in the form of half-empty loose bags or sacks, projecting towards the cavity of the amnion. In one of the four placentæ in which I have observed this contraction, or diminution at least, of the fibrinous coagula, the cavities containing these contracted coagula were filled up with a limpid serum, but in the other three instances I do not find in my notes any mention of such an effusion.

In no case have I seen the complete removal of the fibrinous coagula from their containing cavities, or any appearance whatever indicative of the organization of these coagula; and I have to regret not having directed my attention particularly to the

* One of these specimens was in the rich and valuable pathological collection of Mr. Langstaff, of London, the other is contained in the Anatomical Museum of the University of Edinburgh, and is thus described in the printed catalogue (p. 236): "Placenta about the fourth month; fœtal surface studded with numerous irregular dark-coloured tubercles resembling melanotic depositions." The dark appearance of the sanguineous coagula in both of these cases is such as might render them at first sight very liable to be confounded with actual melanotic deposits; and in the Edinburgh case this mistake in regard to their true pathological nature might have been the more readily committed, from the small masses of effused blood appearing of a beautiful bluish-black colour, as seen through the membranes covering the fœtal surface of the placenta, owing to these membranes, as semitransparent whitish media, reflecting the blue rays of light transmitted through them from the dark surfaces of the coagulated masses of blood lying immediately beneath them.

* Anatomie Pathol. Liv. xvi, Pl. i, fig. i.

state of the placentary tissue more immediately surrounding the effusions, and observed the changes which take place in it upon the occurrence of these sanguineous extravasations. In some instances, as in those represented by Cruveilhier*, the surrounding placentary structure appears to become atrophied and anaemic, after the effusion has occurred; it seems probable, that, in other cases, this state and other diseased states of the placentary tissue and vessels may precede and indirectly give rise to effusions; but whether a cyst is ever formed around the sanguineous coagula, and under what circumstances it is formed, I have no data to determine, either from observations which I have myself made, or that I can find in the works of others.

I regret, further, not having in my possession any precise facts to determine the period of time which blood effused into the placenta, or between the membranes, requires to undergo the several changes that I have mentioned; but I have seen them all effected in diseased ova, which I had every reason to believe were expelled before the fifth and sixth month. The placenta that I have formerly alluded to as presenting cavities containing at the same time contracted fibrinous coagula and an effusion of serum, was expelled at the eighth month, but was less in breadth, though of much greater thickness, than placentæ at that period generally are.

A number of the cases of tumours and circumscribed indurations of the placenta, described by Morgagni† in his 48th Letter, of the scirrhous tubercles mentioned by Albrecht‡, and admitted by MM. Murat§ and Moreau‖, and of those eminences on the surface of the amnion figured by Ruysch¶, Sandifort**, Breschet††, Velpeau‡‡, and Dr. Granville§§, and spoken of by this last author under the name of tuberculated ova and placentæ, appear to consist in reality of coagula of blood, which have undergone more or fewer of the changes that I have attempted to describe. The white masses in the placenta, composed of a substance resembling both fat and cartilage, recently mentioned by Professor Stein*, not improbably consisted also of the fibrinous matter of effused coagula of blood. In the notes which I took of the first specimen of these yellowish fibrinous masses which I had occasion to examine†, I find that I have described them as internally "not unlike tuberculous or dense encephaloid matter;" but since that period I have had ample opportunities of correcting this conjecture, by an examination of above twenty additional specimens of this particular lesion, and I have now not only been able to trace in different placentæ the gradual transformations already described as occurring in the effused blood, from its appearance as a recent dark-coloured coagulum, to its condition of a yellowish white fibrinous mass; but I have seen more than one instance in which these two states, with all their intermediate gradations of change and coloration, could be observed in different coagula which had been effused at successive periods in the same individual placenta.

Sandifort seems to have been aware of the nature of some of the morbid appearances in the placenta and ovum that I have described, and to have observed some of the principal changes which the extravasated blood undergoes, as appears from the following passage in his Observat. Anat. Path. Lib. iii. Cap. vi, p. 95: "Vasa disrupta effunderant, inter chorion et deciduam reflexam, sanguinem, que ibi in grumos collectus erat. Talis effusiosi contigit, ova depurari omnino nequeunt, etiamsi diutissime aqua contineatur, nisi decidua externa et reflexa a chorio penitus tollantur. Contra solvi, tolli, coagulatus ille sanguis valet, qui membranis extrinsecus adhaeret, efficit que, ut *ova, abortu rejecta, referant ferme semper massam cruentam, sic ut quadam veluti carne condentur, atque tunc nitidae puræque membranae omnes apparent.*" Vater. as quoted by A. C. Baudelocque (Traité des Hemorrhagies de l'Uterus, p. 57—58) mentions having seen an ovum like the one figured by Ruysch (Tab. iii, fig. 7), and afterwards a second ovum with the coagula in a different state. "Eandem fere faciem (ut Ruyschii, fig. 3), habebat ovum aliquando oblatum, sed mulierem morositate iterum ereptum, hac tamen differentiâ, quod eminentiæ interius occurrentes, non durae, sed vesiculæ sanguine grumoso plenæ fuerunt." (Dissert. Inaugural, Mola Prægnans, &c. p. 22.) M. Baudelocque describes an ovum which he had himself met with in 1823, having a number

* Anatom. Pathologiq. Livr. xvi, Pl. i, Fig. 1 and 2, and Livr. vi, Pl. vi, Fig. 2.

† De Sedibus et Causis Morb. Ep. 48, Art. 23, 24, &c.

‡ Acta Nat. Cur., tome iv, Obs. 104.

§ Diction. des Sciences Med., tome xlii, p. 545.

‖ Archiv. General. de Medecine, tome xxv, p. 124.

¶ Thesaurus Anatomicus Sextus, Tab. ii, fig. 4, and Tab. iii, fig. 7.

** Observationes Pathol., Lib. iii, Tab. viii, fig. 4,

†† Etudes Anatomiques, &c. d'Oeuf, Pl. v, fig. 3.

‡‡ Embryologie Humaine, Pl. ii, fig. 8 and 7.

§§ On Menstruation and Abortion, Pl. vi, fig. 20.

* Kleinert's All. Repertorium, v. Jahr. 1 Heft. S. 35.

† This specimen was contained, along with a second similar preparation, in the Museum of St. Bartholomew's Hospital.

of small tumours in its coats, consisting, as his examination of them convinced him, of effusions of blood in different stages of alteration: "dans quelques tumeurs il n'yavait que la fibrine presque décolorée; dans d'autres la consistance du caillot etait moindre et sa couleur plus foncée." It appears to be this same specimen that M. Velpeau has figured, (Embryolog. Pl. ii, fig. 8). He briefly describes (p. 89) the "bousselures" upon it, as made up of "d'anciennes masses fibrineuses degenerées," and mentions having seen in 1833 one other similarly diseased ovum. M. Breschet states in reference to the case which he has figured, that he had not been able to determine the nature of the tumours seen projecting on its amniotic surface: "Oeuf humain que nous considerons comme offrant une alteration organique dont nous ne pouvons pas determiner la nature." (Etudes, &c. p. 156.) Dr. Granville describes "the tubercles of placentas" as "formed by the enlargement of those filiform vessels which exist on the inside of the chorion." (On Abortion, p. 21). I consider it only as an act of justice to myself, and, at the same time, as a strong corroboration of the accuracy of the pathological views which I have endeavoured to develop in the preceding pages, to state, that I had arrived at these views with regard to the various changes which the blood effused in placental ecchymosis undergoes, altogether from the examinations of diseased ova which had fallen in my way, and before I was in any degree acquainted with the cases and notices of it that had been previously published by Sandifort, Vater, Baudelocque, and Velpeau, in the different passages that I have just now quoted from their writings.

Having taken up so much of the time of the Society in describing the anatomical characters of placental congestion and hæmorrhage, I shall be very brief in my remarks upon its causes and symptoms, referring on these subjects to the different treatises on abortion and uterine hæmorrhage, and more particularly to the excellent work of M. Baudelocque upon this latter subject*.

Causes of Placental Congestion.—The occasional, exciting, or determining causes of placental congestion may be considered as existing either on the part of the child or of the mother.

With the causes existing on the part of the child we are as yet but very imperfectly acquainted; but it seems probable that all such morbid states and physical lesions and malformations of the fœtus and umbilical cord as have a tendency, directly or indirectly, to prevent or impede the free return of blood through the umbilical vein, will have the effect of producing more or less marked congestion in the minuter placental ramifications of this vessel, and perhaps may even lead, in some cases, particularly if rapidly developed, to extravasations of blood from these ramifications. We now know that the fœtus in utero is liable to various febrile, contagious, malarious, and inflammatory affections—to plague, small-pox, and perhaps measles and scarlatina—to ague, and a number of acute internal inflammations, but whether the presence of these diseases in the fœtal economy is capable of exciting placental congestion or not, through the long and tortuous tract of the umbilical arteries, and what morbid effects they may produce upon the placental circulation in general, are points still open for investigation.

As occasional, exciting, or determining causes, on the part of the mother, of placental congestion and sanguineous effusion into the substance, and upon the surface of the placenta and ovum, I may mention physical injuries, such as blows, falls, &c., great muscular exertions*, and bodily fatigue,

* Traité des Hémorrhagies Internes de l'Uterus. Paris, 1831.

* Since writing the above, I find that M. Velpeau, in the last edition of his most elaborate "Traité de l'Art des Accouchemens," is inclined to doubt if succussions of the the body, blows upon the uterine region, falls, &c., are really capable of producing any mechanical detachment of the placenta from the surface of the uterus. "Quand on se rapelle que l'œuf remplit exactment l'uterus, qu'il est exactment rempli lui-même par l'eau de l'amnios, ou voit, bientot que les mouvements imprimés a la femme par des secousses sont presqu' aussi incapables de separer le placenta de la matrice, ou le chorion de l'amnion, qu'ils le seraient d'isoler deux vessies emboitees l'une dans l'autre et dont l'interne serait completement rempli de liquide." Without discussing the point whether the uterus is always kept distended or not by its contents, in the manner here mentioned, a circumstance which appears to be extremely doubtful at least, (see Ingleby on Uterine Hæmorrhage, pp. 132, 133), and perhaps liable to variations in connection with the relative state of fulness of the uterine vessels, or rather with the relative state of tension of the uterine walls, resulting from the condition of its blood-vessels, and without appealing to the abstract laws of physics in refutation of M. Velpeau's opinion, I would merely adduce for that purpose the morbid phenomena that are every day observed to take place within the cranium—a cavity which we know for a certainty to be placed, after the fontanelles are closed, in the same physical relations with its investing membranes, and solid and fluid contents, as M. Velpeau conceives to subsist between the gravid uterus and its contained ovum. Concussions and external injuries of the head are well known to pro-

excess of venery*, morbid irritations of the uterus and neighbouring organs, acute febrile and inflammatory diseases, strong mental emotions, and, in general terms, all those circumstances which have a tendency to produce plethora, and increased action of the whole maternal vascular system, and of the uterine system in particular. These various causes may produce placental congestion and hæmorrhage in different ways; certain of them, as the physical injuries alluded to, may occasionally lead to this effect, by directly or mechanically rupturing by the concussion which they create, some of the placental and utero-placental vessels and attachments; others of them, and even the very same causes at other times, may act by inducing a morbid determination of blood to the uterus and placenta, or by exciting such muscular contractions of the uterus, as will separate, to a greater or less extent, the mutual uterine and placental connections.

With respect to the mode of action of general and local plethora and increased vascular action, in producing placental congestion and hæmorrhage, I shall only venture to make one remark. If we admit, with some authors, that the newly formed vascular canals, which, on the doctrine of the Hunters and others, are believed to pass from the uterine vessels into the placenta, are less firm and resistent in their coats or texture than the other blood-vessels in the maternal system, it will follow, that when a greater than usual plethora or vascular action happens to occur in the sanguiferous system of the mother, or when, from any causes, the blood is determined in a particular manner to the divisions of the uterine arteries and veins, it will be most apt to become congested in the naturally little, if at all, elastic vascular tubes and canals of the placenta; and further, if the momentum of the whole mass of blood in the body of the mother, or of that in the branches of the uterine vessels alone, be preternaturally increased, the placental or utero-placental vessels or canals will be the first to yield or rupture under the generally or uniformly increased degree of internal pressure, inasmuch as they are the least capable of affording the requisite resistance to the distending force and equiversant pressure of the contained fluid. All the above effects will be naturally more or less promoted by the existence of any such diseased state or states of the tissue of the placenta, or of the placental and utero-placental vessels themselves, as diminish the elasticity and power of cohesion of the component tissues of these vessels, such as their stearoid, cartilaginous, or calcareous degeneration, &c.

Symptoms of Placental Congestion.—The symptoms produced by placental congestion and hæmorrhage are, in many instances, obscure and difficultly appreciable, but in other cases, especially in those in which sanguineous extravasation occurs, the preceding and accompanying phenomena are frequently sufficiently characteristic and well-marked.

Simple placentary congestion, whether primitively seated in the fœtal or maternal vessels, seldom, perhaps if ever exists for any considerable period of time, without more or less speedily superinducing a degree of uterine congestion; and again, the state of congestion or determination of blood to the vessels of the uterus, when occurring as the primary pathological affection, is probably as generally and directly followed by a similar condition of the placental vascular system or systems. Placentary congestion, therefore, whether proceeding or not to extravasation of blood, usually appears to be either preceded or accompa-

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duce occasionally a rupture of the blood-vessels running between the cranium and dura mater, and a greater or less consequent effusion of blood between their detached surfaces, without any depression whatever of the cranium. I have known a case of this kind, where a large circular coagulum, three inches in breadth, was found effused in this situation, on the body of a man who was discovered in the street during the night, in a state of profound coma. In other cases of traumatic apoplexy, we find blood effused on the cerebral side of the dura mater, between it and the arachnoid, or between the arachnoid and pia mater, and in other rarer instances, again, it is seen to be extravasated into the ventricles, or into the substance of the brain itself.

* In an interesting memoir on abortion among our domestic animals, inserted by M. Flandrin in Chabert's "Instructions et Observations sur les Maladies des Animaux Domestiques," vol. vi, pp. 107—164, it is stated that pregnant cows, mares, and sheep, miscarry in about twenty-four or thirty-six hours after sexual connection. The same effect is not observed in the sow. Entire flocks of cows are said to have been seen to abort with dead fœtuses after unusually violent thunder storms, probably, it is conceived, in consequence of the terror that seems to be excited in the minds of these animals by such an occurrence. Occasionally, all the cows of a dairy, or even of a whole district of country, have been observed to miscarry one after another, a circumstance which some authors have endeavoured to explain on the principle of contagion. See Tessier, in "Memoires de la Societe de Medecine" for 1782—83, p. 549. Various curious notices on this interesting point in comparative pathology, are given by Mr. Youatt, at p. 528—531, of his volume, on the Breeds, Management, and Diseases of Cattle, in the Library of Useful Knowledge.

nied by those symptoms which denote an increased activity in the uterine sanguiferous vessels, as by a feeling of oppression or weight, and tension or bearing down in the uterine and pelvic viscera. If there exists a general plethoric state of the system, various febrile phenomena may also present themselves. Occasionally, the uneasy feelings in the uterine region proceed to a degree of fixed or intermittent pain, confined to one part of the uterus or uterine region only, or diffused generally over it. This pain seems frequently to extend to the loins and thighs, and a similar sensation appears in protracted cases to be sometimes even felt in the mammæ. At the same time, the morning sickness and vomiting, with the other sympathetic affections, which so frequently attend upon the natural development of the uterus during pregnancy, are in most instances manifested in an increased or unusual degree.

When the placental congestion has proceeded to the extravasation of blood, besides the symptoms already mentioned, others of a more unequivocal character generally present themselves. The effused blood may, as we have already seen, be poured out in situations from which it cannot escape externally. Perhaps, however, in the earlier months at least, in the greater number of cases, some portion of the blood is effused into situations so that a small quantity of it does escape *per vaginam;* and this circumstance, when found in connection with other symptoms, particularly with lumbar and uterine pains, and with the knowledge of the previous action of any of the directly exciting causes of placentary congestion or hæmorrage, may be considered as furnishing very unequivocal marks of the existence of these states. If a pregnant woman, for instance, immediately after receiving a fall or blow, or any sudden succession of the body, such as that occasioned by severe coughing or retching, be seized with sudden distensive uterine pain, and more or less effusion of blood externally, little doubt can, in most cases, be entertained, with regard to the nature of the internal morbid conditions which these symptoms indicate. One of these symptoms only, however, the uterine, or lumbar pain, or the external hæmorrhage, may alone be present. The feeling of uterine pain, if occurring alone, can perhaps be but little trusted to as a diagnostic mark in the state of pregnancy, unless when taken into consideration with various collateral circumstances. In placental hæmorrhage it is probably produced, as M. Baudelocque has supposed, by the mechanical distension of the uterus with the blood effused, and this distension can, it has been alleged, be sometimes, though I should conceive very rarely, actually traced externally in the enlargement of the absolute volume or bulk of the uterus. In some instances the pains remit or disappear entirely in the course of a few days or weeks, when the uterine enlargement has again proceeded considerably in its course, and in many other instances they pass sooner or later into the intermittent and regular pains indicative of uterine contraction. The external hæmorrhage, is, in some instances, observed to be in considerable abundance from the beginning; but more frequently it presents itself, in the first instance, as a few drops of blood, or of blood and serum only, afterwards becoming increased or not in quantity. In many cases this hæmorrhage is seen to remit and return repeatedly, after the lapse of a few days, or at the distance of several weeks.

When placental hæmorrhage occurs in the latter months of pregnancy, the internal effusion of blood is sometimes so great, particularly when proceeding from a rupture of the utero-placental vessels, as rapidly to produce all the most alarming symptoms caused by extreme loss of blood, and under such circumstances the case may even proceed to a fatal termination, without, as I have already mentioned, any sanguineous discharge whatever appearing externally. In other cases of placental congestion and hæmorrhage occurring in advanced pregnancy, there is an external discharge as well as an internal effusion of blood; although no part of the placenta is found on examination to be placed over the os uteri,—a case which I have not included, and consequently avoided all allusion to, in the preceding observations.

Effects of Placental Congestion on the Fœtus.—When placentary congestion occurs after the period of quickening, and is very acute in its character, or rapid in its appearance, the motions of the fœtus would appear to be occasionally rendered suddenly irregular, and at times almost convulsive. If the congestion is more chronic in its nature, the motions of the fœtus occasionally become extremely languid, or not at all appreciable; but under a timely detraction of blood, they may be, as Madame Lachapelle* has remarked, again reproduced after having ceased for several days. How much we may be assisted in the latter months of pregnancy by auscultation, in this and in similar cases, in our detection of the morbid states of the placental and fœtal circulations, it is difficult, if not impossible, at this moment to determine; but more accurate and extensive observations upon this subject may yet lead to some not unimportant results.

The occurrence of sanguineous effusion from the placental, utero-placental, or exposed mouths of the uterine vessels, though often in the latter, and almost always in the

* Pratique des Accouchmens, Tome ii. p. 323.

early months of utero-gestation, unattended with any great danger to the mother, and very frequently making no impression whatever upon her system, or not even betraying itself by any external discharge, must always be looked upon as a circumstance threatening the most direct and imminent danger to the life of the fœtus, for a very small quantity of blood, whether extravasated in the earlier weeks upon the villous surface of the chorion, or at a later period into or around the placenta, may be amply sufficient to arrest the processes of fœtal nutrition or respiration to such a degree, as effectually to impede the development, or destroy the life of the embryo, and in this latter way prove an indirect cause of abortion. For my own part, I feel assured that the preparations of aborted ova, contained in the pathological museums of this country, fully bear out, as far as I have myself seen them, the opinion of Professor Duges,* that the most frequent cause of abortion is active placental congestion, a term under which he at the same time includes placental hæmorrhage. This remark, I believe, will be found in particular to apply to abortion in the earlier months. In the greater proportion of cases which I have met with of ova aborted in consequence of internal placental hæmorrhage, I have found the ovum itself of the average size of an orange, and the embryo arrested at about the fifth or sixth week of development, or at that stage at which the extremities of the body first begin to appear in the form of rounded buddings. Expulsive uterine contractions had not, however, supervened in many of these cases for several weeks after the internal sanguineous effusion had actually taken place, and in some of them, the general growth of the membranes and placenta appeared to have gone on during that interval, while in one or two cases the embryo itself had also enlarged to nearly the size of the thumb, although the individual development of its extremities, and perhaps of other organs, had been arrested.

(*To be continued.*)

* Diction. de Medecine et Chirurg. Tome viii, p. 309.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXII.

Generation of Fishes.

Fishes in general possess separate sexes, male and female. Their genital organs, like those of insects, are placed in the abdomen, and communicate with the anus. It is through this last aperture that the male ejects the sperm, milt, or soft *roe*, and in some examples protrudes a penis; and that the female admits him, and in most cases expels the spawn or hard *roe*.

A vast majority of fishes have no external sexual organs, or connexion, but they possess bags near the tail, which become very much distended at the spawning time. The females are incommoded by the weight of their eggs, and relieve themselves by rubbing the abdomen strongly against the rocks and stones with which they come in contact, and also by rapidly agitating their fins.

According to some naturalists, the females expel their ova in immense multitudes at spawning time, in some shallow part of the water, where they may be exposed to the sun, when the male passes shortly afterwards over the eggs (spawn, or hard roe), and discharges his spawn upon them, which is popularly termed soft roe, or milt. The spawn and sperm intermix, and influenced by the heat of the sun, a new action commences, the result of which is a shoal of young fishes of a certain species.

There is a great want of instinct in the multiplication of many fishes.

The females do not select a proper situation for the deposition of their eggs, and, incommoded by their weight, they deposit them whether fecund or not, and regardless of their progeny. But their immense fecundity obviates the bad effects of this incaution. As most females produce many millions of eggs, there is always sufficient to perpetuate the species, notwithstanding the prodigious quantity devoured by birds, reptiles, and fishes.

The power of fecundity of fishes is incalculable, and appears almost incredible. Thus it is said, that there are fifty thousand eggs in the abdomen of a herring; two hundred and eight thousand in that of the cyclopteri; two hundred and eighty thousand in the perch; three hundred thousand in the sturgeon; three hundred and eighty-three thousand in the tench; more than six hundred thousand in the carpe; near a million in the turbot; and three millions four hundred and forty-three thousand in the codfish! It is by this astonishing power of fecundation, notwithstanding the great destruction of fishes caused by insects, crustacea, birds, and even man, that nature provides for the perpetuation of this class of animals. It has been observed, that a single herring, if suffered to multiply undiminished for twenty years, would produce a progeny greater in bulk than the earth itself. During the time of migration, the shoals of fish are sometimes so great as to darken the surface of the ocean for several miles.

But the preceding is not the only mode of procreation among fishes. There are some species, as the cartilaginous, in which the ovaries are fecundated in the abdomen by the introduction of the male organ into the vagina, and by the internal emission of spermatic fluid. Thus the squalus, or shark genus, and some of the skates, unquestionably copulate. The male is furnished with holders for maintaining his grasp upon the female amidst the utmost violence of the waves, and his penis is cartilaginous, or horny. The female developes her young in her own body, and expels them, viviparously, or living. The blenny, loach, anableps, &c., produce their young in the same manner.

Some fishes show a disposition to pairing even when deprived of external sexual organs. Thus the different sexes, when kept in ponds, are observed in great tumult in spawning time; and the male and female salmon, after having ascended a fresh stream, and one that is sufficiently shallow, unite in forming a nest, or pit, in the sand, of about eighteen inches in depth, into which the female casts her spawn, and the male immediately afterwards ejects his milt, and then the nest is covered over with sand by a joint exertion of their tails.

The sturgeon and many other marine fishes also seek out a fresh water for the same purpose; and their migrations are often very considerable before they can obtain a proper gravelly bed. In fine, some species of fishes, as whales, have as perfect a copulation as mammiferous animals.

It is also remarkable that castration of fishes renders their flesh more tender and delicate. Plants are also modified by preventing the generative function, and analagous changes take place in birds, mammiferæ, and the human species.

Thus, according as we advance in the study of the generation of animals, we acquire convincing proofs that all living beings are governed by the same laws; that life exists in all organized beings; that the phenomena of existence differs according to the absence or perfection of certain material parts; that man does not differ from the perishable insect, except in his reason and immortal principle.

Reptiles, Serpents, &c.—This class presents to our study the most dangerous, frightful, and disgusting animals; but in examining their generative functions, we discover facts capable of exciting our greatest admi-

ration. These animals may be divided into two classes; those that perpetuate their species without copulation (bratachia), the eggs being fecundated by the male, after they have been expelled by the female. Among this class are toads, frogs, salamanders, &c. Reptiles that procreate by copulation and do not undergo metamorphoses and are of separate sexes, and in these the cloaca is near the tail; it allows the performance of the reproductive function, and the evacuation of the excrements and urine. Some of these are deprived of feet and fins, as serpents, vipers, snakes, &c., and these are termed ophidiens; others as chelodiens, or tortoises, sauriens, or lizards, and brataciens, or frogs, are included in the class of reptiles. Reptiles have distinct sexes, somewhat similar to fishes. The generation of reptiles is oviparous, though some are viviparous and bring forth living offspring, as the viper; and others may be rendered so on removal from water, as snakes. Some of these animals do not incubate their eggs, but leave them to be developed by heat and humidity.

Frogs, &c.—These do not copulate, but the female deposits her eggs in a place calculated for their safety and growth, and these are impregnated by the male, either by the direct application of the spermatic fluid, or by a vapour arising from it (*aura seminalis*). The eggs are not fecundated by the male, until after their expulsion from the female, and they are enclosed in a thin, soft membrane; and this fecundation is often favoured by the reunion of eggs in a chain or chaplet, which the male assists the female in separating, or by seizing them with its extremities or hind paws, and pulling them with more or less force, as may be observed every day among frogs. The toad, called bufo obstetricans, is another example. When frogs are aquatic, they lay their eggs in water.

Early in spring, the male frog is observed on the back of the female, and remains in close contact with her for more than a month, but no copulation occurs, nor has the male any external genital organ. When the animals separate, the female seeks some shallow water, in which she deposits her spawn, which consists of a chain of small glutinous bodies, over which the male passes and deposits his sperm. The result is a tribe of tadpoles, whose transformation into frogs is one of the most singular curiosities in natural history. The Surinam toad (*ran pipa*) seizes the spawn of the female with its feet, smears it over her back, in which are small cavities, that receive many of the eggs, and over these he emits the sperm. These cavities are nests in which the eggs are hatched into tadpoles, and these are perfected in about three months. There are, however, exceptions.

The function of reproduction in frogs is thus described by Mr. Bell.

"The ovaries enlarge greatly at the breeding season, and the ova at the time of their deposition fill the body almost to bursting. At the time of impregnation the male, placing himself on the back of the female, embraces the body with astonishing force with the anterior legs, which are pressed under the axillæ, and the tubercular thumbs, which are at this period considerably enlarged to enable him to retain his hold, are so essential to this object, that if they be cut off, he can no longer clasp the female with the requisite force. The instinct which instigates the male frog to this act at the season of breeding is astonishingly powerful, and sometimes no less remarkably blind. Thus, it is recorded by Walter, and has been often observed by others since his time, though the object of this curious fact has been unaccountably overlooked, that frogs are occasionally found in the spring adhering with great force to different partsof the skin of the pike; and a near relative of the writer of this article has seen an instance of the same kind, where several frogs were so closely fixed to a large pike as to require some force to remove them. This instinct of adhesion is, in fact, sometimes fatal to its legitimate object,

I have before now taken from the water a large conglomeration of male frogs, amounting to perhaps twelve or more, with one solitary female in the middle of the mass, dead and putrid, and even some of the males, towards the interior, pressed into an almost lifeless and shapeless lump.

"While the male is thus closely embracing the female, an operation which sometimes lasts for more than a month, the eggs, to the number of several hundreds, are gradually ejected from the cloaca, either in masses as in the frog, or in double chaplets as in the toad, and impregnated by the sprinkling of the semen, as they pass out under the male. In some species, as the *bufo obstetricans*, the female is assisted in the act of expulsion by the hinder legs of the male. When the eggs are thus deposited in the water, the jelly-like substance in which each is enveloped absorbs a large quantity of it, and the whole mass speedily enlarges to many times the size of the animal from which it was expelled.

"The male of the bufo obstetricans just mentioned, when, by his assistance, the eggs are excluded, attaches them to his thighs by glutinous threads, and carries them about with him until the young are ready to leave them, when he seeks a pool of water in which he deposits them, and the young shortly afterwards come forth.

"The impregnation of the tailed aquatic genera, as the tritons, is effected by a totally different mode. During the spring, the males acquire a considerable dorsal membrane, which runs the whole length of the back and tail, and is sometimes curiously indented or fringed at its edge. This membrane is gradually lost after the breeding season, and its use appears to be to assist in the act of impregnation. The male, instead of adhering to the female like the frog, swims by her side pursuing her in all her rapid and changing courses through the water, till at length both remaining for a moment quite still, he suddenly turns up, by the assistance doubtless of the dorsal membrane, and places for an instant the edges of the cloacal aperture in contact with hers. It is at this instant that the semen is ejected and received. The eggs are afterwards deposited slowly, and comparatively few in number, upon some part of an aquatic plant, on which the female supports herself by holding by her hinder legs.

"When the embryo has gradually acquired its larva development, and is ready for its aquatic life, it bursts the thin membrane which encloses it, and emerges in the fish-like form which has been so often alluded to in this paper.*"

The results of impregnation are tadpoles larvæ, which have large heads and long bodies or tails—they do not respire by lungs, but by gills—they have no feet or eyes—they resemble large round worms, and are chiefly nourished by vegetable matter—they gradually increase in size, change their form and skin—their eyes and limbs are developed, the tail is detached from the body, pulmonary respiration replaces brachial or that by gills, and the reptile having acquired perfection, is fitted to procreate its kind.

This mode of development of toads and frogs is analogous to that of the human species, as the embryo does not respire by lungs for nine months, and only by the placenta.

This is a singular relation between man and those animals whose very aspect so disgusts and terrifies him.

It is also remarkable that at the moment the female deposits her eggs, the male impregnates them. In many species, the male extracts the eggs from

* The Cyclopædia of Anatomy and Physiology. Edited by R. B. Todd, M. B. Part I. Art. Amphibia.

the female, and places them in a convenient situation for development. Spring is the season of reproduction among frogs. The tenderness of these animals for their young is very remarkable. The numerous experiments of Spallanzani on the generation of frogs will be noticed on a future occasion.

Salamanders deposit their eggs without the succour of the male. It is sufficient that the regenerative fluid is deposited in the liquid in which they are placed. It is known that the bitch and other females of the mammiferæ have been impregnated by injecting with a syringe into the vagina, the fresh spermatic fluid of the male. Mr. Hunter advised a man who laboured under fistula in perineo, through which the seed escaped, to collect and inject the fluid, and it was supposed to have caused impregnation, and the supposed grand-daughter of the offspring is now living. This case is possible perhaps, but most improbable.

It is remarkable that salamanders possess the power of successively restoring, many times, their inferior members, their eyes, and even some of their vertebræ. It is even said, that when shockingly mutilated, they regain their functions as perfectly as if they had never received any injury. Those desirous of farther information on this and other subjects in natural history may now procure many modern works; and among these is a concise and comprehensive production, Nouveaux Elemens D'Histoire Naturelle, contenant la Zoologie, la Botanie, la Mineralogie et la Geologie. Par A. Salacroux, M.D. Paris: 1836. The work is illustrated by 44 plates, representing 400 figures, and is popular and instructive.

Serpents have distinct sexual organs and propagate by copulation. These are in general oviparous, but some are viviparous. The anus is common to the prolongation of the ovary and to the penis of the male. The copulation is very distinct. These defend their young until death. They evince the greatest maternal tenderness. It is in spring that they change their skin and afterwards copulate.

Tortoises copulate for three or four days, and their eggs are covered with a hard shell, not like the membraneous one of the eggs of serpents; they are deposited in the sand, and are developed without the incubation or hatching of the female: some are viviparous.

Lizards propagate like the latter. The tail of this animal possesses the singular property of regenerating itself when it is partially destroyed by any accident, and sometimes it forms two instead of one. We sometimes see lizards with two heads, a kind of monstrosity which we occasionally observe in man and other mammiferous animals.

CASES AND OBSERVATIONS

ON A PECULIAR CUTICULAR DISEASE AFFECTING THE PARTS AROUND THE MOUTH.

By William Monk, Esq.

"The harsh and cracked state of the skin surrounding the prolabia, has not I think been distinctly noticed by any author. It consists of a continual dry splitting, and exfoliation of the cuticle, and occupies a rising of about one fourth of an inch in breadth all around the mouth. It varies in severity in different cases, and at different times; it is sometimes partial only, at others it involves the whole prolabium, and a portion of the surrounding skin." Vide Observations on the Constitutional Diseases of Females, by Dr. Marshall Hall. Second Edition p. 61.

Miss E., when about five years of age became the subject of a rough, scurfy condition of the cuticle, affecting the part around the mouth, extending in breadth for about one third, or half an inch, and forming as it were, a complete and uninterrupted circle around the mouth. She had always been extremely delicate, was highly susceptible of variations of temperature, and was very frequently the subject of severe and long protracted catarrhs. Her general appearance indicated a scrofulous condition of the system, which was apparently in

herited from the father, who had, during his youth, severely and still continued, although in a less degree, to suffer from the same disease.

Four months previously to the appearance of this affection, she experienced a severe attack of measles, but shortly recovered, without the occurrence of any of the usual sequels of that disease.

The first indication of any local affection, consisted of continued irritation, and heat around the mouth, together with a constant application of the fingers, or of any cold substance to the part affected. A slight roughness was soon perceptible in the same situation, and this increased gradually in extent and severity, so as to become, in the space of a few months, a source of great disfigurement.

About this period, symptoms of general derangment of the economy presented themselves, her countenance became pallid, the digestive organs disordered, the pulse weak, but rather sharp, and the powers of the muscular and nervous systems diminished.

The medical attendant, (the late Doctor Walshman of Kennington,) prescribed small doses of calomel, with jalap and rhubarb, to be taken every night, and recommended a residence on the coast, with sea-bathing. During the continuance of these measures, the general health underwent a slight progressive improvement, but the cutaneous affection continued obstinate. After many unavailing efforts, towards its removal, the further course of the disease was left to nature, in hopes that the powers of the system would eventually effect a favourable change in the condition of the part.

Having, however, in the autumn of 1835, caught a severe cold, the constitutional symptoms recurred with increased violence, and the parents, dreading the approach of phthisis, became much alarmed, and once more sought relief from the powers of medicine.

At this period, (when I first had an opportunity of observing the condition of the patient) there was great general debility, bloodlessness, small, easily excited pulse; pallid cheeks, foul tongue, with a constipated and otherwise disordered state of the alimentary canal.

She was first treated for the slight bronchial affection, under which she then laboured; but on its cessation was ordered to take every alternate night, two grains of mercury, with chalk, and four grains of each of the extracts of taraxacum and rhubarb, with one of socotrine aloes. During the day a combination of sulphate of iron and hydriodate of potass was exhibited. These medicines being persevered in for eight or ten weeks, I had the agreeable satisfaction of perceiving a considerable amendment in the general condition of the patient, as well as a marked diminution in the roughness and exfoliated condition of the parts surrounding the prolabia.

At this period of the case the family removed to Hythe, but I have since been informed that after a still further employment of the medicines her health was perperfecty re-established, and the lips lost the whole of their roughness. I should have noticed that a weak ointment of the binioduret of mercury was applied every evening. It produced little or no effect, until the general health was considerably improved, when its beneficial effects were almost instantaneously apparent.

Miss J. A., in April 1831, when about nine years of age, suffered from a protracted attack of typhus fever, in the course of which, symptoms of gastro-enteritis were developed in more than ordinary severity. Her convalescence was very tedious; she recovered slowly and imperfectly, symptoms of abdominal derangement still remaining. The nature of the case not being clearly comprehended, she was treated at various periods by different individuals, each of whom entertained opposite opinions with respect to the proximate cause. By one the lesion was supposed to be subacute gastro-enteritis; by another worms were considered the efficient cause; whilst by a third, the derangement was named hepatic.

Her general health at length became *considerably* impaired: all the functions of the economy were imperfectly performed, and she was unable to sustain the slightest exertion. The general appearance indicated a state of anemia; her hair became thin, and dropped off in large quantities; her tongue was apparently swollen, bloodless, and indented at the edges; the breath fetid; digestive powers impaired; she experienced constant nausea in the morning; the bowels were obstinately constipated, and she complained of intolerable and persistent headach. After the continuance for some time, and during the presence of these symptoms, the cuticle surrounding the prolabia became very harsh, and rather opaque, though not very sensibly thickened: it subsequently cracked, divided into small portions, and eventually exfoliated. This process was continually repeated: as soon as one portion of diseased cuticle falls of, another makes its appearance, so that there exists a *constant* rough squamous state around the prolabia.

In this case the diseased cuticle did not form an uninterrupted circle around the mouth, its continuity being broken at two spots. The angles of the mouth were, however, the portions where the diseased action appeared to be going on with the greatest activity.

The therapeutical indications in this were not so simple as in the former case, on account of the number of organs implicated.

The first endeavour was to induce a more

healthy action of the intestines: but it appeared evident that this object would scarcely be attainable, without at the same time giving strength and vigour to the constitution. Two grains of calomel, with five of the compound extract of colocynth, and one of conium were ordered to be taken every alternate night, for a week or ten days, and to be followed the subsequent mornings by a dose of castor oil. These measures to a certain extent fulfilled the object of their administration; the bowels became freely relieved, the action of the hepatic system was increased, and the discharges put on a more healthy appearance.

The following medicines were then exhibited.

℞. Pilulæ hydrargyri gr. xii;
Pulveris ipecacuanhæ compositi, gr. x;
Extracti taraxaci,
Extracti colocynthidis compositi, sing. ℈j.

Misce et fiat massa in pilulas æquales, duodecim divide, è quibus sumantur binæ omni nocte.

℞. Sulphatis ferri gr. xv;
Hydriodatis potassæ, ℈j;
Pulveris zinziberis gr. x;
Extracti gentianæ comp. ℥j.

Fiat massa, divide in æquales vigenti quatuor pilulas, quarum, binæ capiantur, bis terve quotidie, in decocti aloes, compositi semuncia.

These remedies having been continued for some time, the symptoms began to subside, when an ointment composed of three grains of the binioduret of mercury to half an ounce of spermaceti ointment, was employed as a local application. In addition to these means, the cold shower bath was had recourse to, and certainly with the most beneficial results; and as soon as the returning strength would permit, gentle horse exercise, as a powerful auxiliary, was employed. In between three or four months, the patient, after an illness of nearly five years, was completely restored to a state of perfect health, and is now capable of undergoing as much exertion as most females of her own age.

From a perusal of the quotation I have prefixed to this communication, it will appear evident that we are indebted to that learned physician and indefatigable labourer in the path of medical science, Dr. Marshall Hall, for the first description of this local affection, or perhaps I might say, this curious *symptom*, inasmuch as in many cases where it occurs it is evidently symptomatic and dependent for its existence on the presence of a peculiar disturbance of the constitution.

I have with some attention examined the characters of this local disease, with a view of placing it in the proper position it ought to occupy in the arrangements of cutaneous diseases. To me it appears to approximate nearer to ptyriasis than to any other known genus. That, if it admit of any scientific classification, it must fall within the order "Squamæ," is, I think, tolerably evident, even although the characters of this affection do not entirely coincide with the nosological definition of a scale. But we must remember in this as in all other investigations bearing in any way on *Dermoid Pathology*, that diseases of one order or even of one genus or species may admit of very great and almost innumerable varieties.

The definition of ptyriasis given by Willan (vide Bateman's Synopsis, edited by A. T. Thomson, 7th ed., p. 71), in which he says it consists "of thin bran-like scales, which repeatedly exfoliate and recur, but which never form crusts, nor are accompanied with excoriations," appears to be extremely applicable to the disease in question.

I have seen one case, however, in which the similarity to psoriasis was decidedly the greatest, but the circumstances inducing this were entirely accidental, and consequently this anomaly must not be taken into account. I have no doubt that had the same circumstances acted on a case of pure and undoubted ptyriasis, that its character would have been equally changed.

In what does the proximate cause of squamous diseases consist? To this question the answer evidently must be—in a derangement of those organs or portions of the cutis whose function it is to secrete or eliminate the cuticle. But to this answer it may further be asked, what is the nature of the derangement which exists in these secretory organs? To a satisfactory reply to such an inquiry difficulties almost insurmountable present themselves, arising not only from the extreme minuteness of the organs themselves, and of the imperfect instruments or aids which we possess, but likewise from our ignorance concerning the physiological action of secretion. A theory which has been often advanced, and which indeed appears to explain the phenomena of the process as well as any with which we are acquainted, is, that the secreting organs themselves are in a state of inflammation either active or passive; and from hence therefore, arises the circumstance, that therapeutical agents, although in their action diametrically opposed, may nevertheless give rise to precisely similar results.

This explanation appears to me peculiarly applicable to the disease which we have made the subject of these remarks.

University of London, June 23, 1836.

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On th Fever that prevailed at Calcutta during the months of September, October, November, and December, 1833. By Frederick Corbyn, Esq., Garrison Surgeon, Fort William.

(*Continued from p.* 704.)

Although Dr. McCulloch is acknowledged to be a talented and experienced physician, he has, like other men his wedded prejudices. in which opinion most of my readers, I have no doubt, will coincide, when I mention that Dr. McCulloch affirms that all the fevers of any moment, which are not contagious, are the effects of malaria; and that these two leading classes constitute the great mass of fevers throughout the world. Those which arise from other causes, he says, are proportionably very small in number, and of very little moment compared with the others. I coincide in opinion that miasmatic exhalations from the low grounds of a rich alluvial country, form a poisonous agent, the influence of which is determined to the mucous surface of the stomach and bowels, on subjects liable to its noxious power, as well as producing dispositions to regular returns of febrile attacks; but I am not disposed to go to the length Dr. McCulloch has gone, in laying it down as the only cause of fever, besides that which he avers to proceed from contagion. The nature of miasmata has eluded research; but the circumstances under which they have been generated, have been ascertained with precision. From these it is concluded that they are a subtile and poisonous emission, in most instances exclusively from vegetable matter in various states of decay. Hence diseases, of which they are the cause, generally prevail in such situations as are most favourable to the production of miasmata, such as the vicinity of marshes and swamps, along the margins of rivers, lakes, and pools, in most alluvial soils, or other lands occasionally inundated, and especially if newly cleared, with the stumps or trunks, or branches of trees left to rot. It is acknowledged however, that miasmata never generate to any extent at less heat than 80 degrees, Fahrenheit. Intense heat is required, as well for the free evolution as for the modifications of miasma. To disengage the exhalations, a limited degree of moisture is necessary. When, as in heavy or periodical rains, the water completely covers the surface of the earth, nothing baneful is permitted to escape, it is only on its subsidence that disease commences.

Now it is one striking fact with respect to this rainy season. The falls have been exceeding small, of short duration, and several days between, scarcely washing away the filth and dirt which had accumulated in various spots, and not doing more than wetting the roads about Calcutta, never even rendering those which are muddy impassable an hour after each fall.

With regard to the localities of Calcutta, I may mention that my patients resided in the Fort, at Coolie Bazar, Garden Reach, Kidderpore, Allipore, Circular Road, Entally, Colingah, Durrumtollah, Ranee Moody Gully, Chowringhee, and the Strand, which embraces the whole circle and centre of Calcutta. It is not to be supposed for a moment, that malaria existed in all these places, unless the influence had its source from neglect of cleanliness in adjacent spots.

The fever, however, was most virulent at Garden Reach, Entally, and Allipore, at which spots there is abundance of material for the generation of the greater quantity, and the worst quality of that poison. Garden Reach, is in a most neglected state; the tanks are filthy, vegetation is considerable, and the stench of vegeto-animal matter must be observable to every one who is in the habit of visiting that quarter at the termination of the rains.

The road parallel with the Mussulman burial ground, and in front of the Martiniere in the direction of Bally Gunge, exhibits broad, stagnant ditches, with decaying grass, and brush-wood, surrounding dilapidated buildings, which have been forsaken, no doubt, from the unhealthiness of the neighbourhood.

The roads branching off the Circular Road in the direction of the Salt Water Lake, display a still worse state from neglect and want of regard to cleanliness. There are accumulations of matter in a state of putrefaction, which must send forth the most pestiferous odours, into the very centre of Calcutta.

As for this city of palaces, as it is termed, its elegant buildings are surrounded by dirty native huts, stagnating pools, and some of its finest tanks which are so much admired, are in many places the source of disease. I am aware that it is laid to my charge, that I am prejudiced against tanks, and that it is my desire to see them all filled up; but I beg to say that I am not prejudiced contrary to the views of science and experience. I know it to be a fact, ascertained not only from my own observation, but by such men as Trotter, Lind, Jackson, Rush, Johnson, Chapman, Fergusson, and others; that although the pestiferous quality of malaria is not generated from the body of the tank, it is from its drying or half dried margins, if these are not built up with brick faces. Water, without being absorbed by the adjacent soil, gives out no morbific effluvia. Febrific malaria is generated from the paucity of water, where it has been previously absorbed, when that paucity is short of actual dryness: to the production of this, the high atmospherical temperature of September, October, and sometimes November, is necessary. In

proportion to the intensity of temperature, so is the intensity of the power of malaria obtained, varying its effects upon the human body. The space of time which intervenes between the application of this insidious poison to the system, depending, however, not only on the degree of its concentration aforesaid, but also on the predisposition of the patient.

From the foregoing observations I do not hesitate to express my apprehension, as to the canal which is being made around Calcutta becoming hereafter a fruitful source of disease. Deep ravines impervious to the rays of the sun and free currents of air that have been water courses, have, after their surface has appeared dry, retained sufficient moisture to give out the most dangerous miasmata, the more dangerous because the more concentrated for want of perflation, and, in fine, salubrious and insalubrious soils, may, under such circumstances, change character in regard to health, and localities in the neighbourhood of each, under the same modification of climate, be very differently affected. From the knowledge of these facts, when I entered upon my present situation, the Hon. the Deputy Governor complied with my recommendation to water the ditch of the Fort in the rainy season. The result was a degree of health during those years in which it was done, unprecedented in Fort William. This year the ditch was not watered, and what is the result?—that most of the inhabitants in the lower roomed quarters of the gateway have been affected with severe fevers, and the sickness in H. M.'s 49th has been to a very great and alarming extent.

I trust I have shewn sufficient to prove the necessity which exists for improvement in habits of polity and cleanliness, to prevent this city becoming a second Batavia as respects filth and disease.

I now proceed to notice my mode of treatment of this epidemic. From the foregoing description of the symptoms, there could be no question as to the necessity of adopting the antiphlogistic regimen. The violent pain in the head seemed to indicate the expediency of blood-letting, that by lessening arterial action might mitigate or abbreviate a disease which otherwise threatened to be severe and protracted. In my first cases I directed the application of leeches to the head, but such was the sinking and prostration induced thereby, that I found that blood-letting or topical bleeding were both nugatory, superfluous, and injurious. The hurried, contracted, hard, and full pulse which occurred, I soon found to be the commencement of the paroxysm analogous to that state of circulation which occurs in the first stage of the intermittent paroxysm. It was, however, only by careful observation that I ascertained the real nature of this particular condition in this fever, which assumed all the appearance of being inflammatory; but, like the topical symptom, headach, was the result of conditions the most opposed to local inflammation or inflammatory action.

Thus, an erroneous judgment of this fever would have been fatal to the patient, so far as respected its treatment, for although I was justified by the symptoms in the application of leeches, the sudden debility which followed, and the whole character of the disease changing to one the very reverse of what it appeared at its commencement, proved topical bleeding to be nugatory in this fever, and that my judgment had been erroneous, and if I had persisted in it, I should have lost most of my patients. Such was the sinking of the vital powers in some cases of this fever, as to induce many to conclude upon its being of the fatal typhus character, and I had much to do to remove those false impressions made on the minds of many, that it was contagious. Having shewn what would have been the consequence of misapplied blood-letting, I must here offer my opinion that I am far from supposing that a stimulant, such as wine &c. was indicated; allowing that in some cases it might have proved innoxious, in most it would have augmented the circulation and increased the fever. I am, however aware of the opinions set forth as to its singular combination of stimulant and sedative powers, rendering it one of the most convenient remedies in the low or the latter stage of fever, and that it has often appeared the means of supporting the patient to a favourable termination; but the day has gone by of giving to wine the character of being that specific and valuable remedy which it bore many years since. Irritability of stomach was removed. I found the draught before alluded to remain and bring away the remains of fœtid accumulations.

The sulphate of quinine was continued from three to four days, and never beyond the fifth, when the patient generally recovered, without requiring any other medical treatment.

Cold applications to the head had the injurious tendency of retarding moisture upon the skin; they were therefore prohibited.

I had no occasion in any instance to apply blisters. In all fevers they are attended with vexatious results, and I know such to have been the case, in some instances concerning which I was consulted. The diet consisted exclusively of warm congee, boiling water, and chicken soup: cold drink were discountenanced in every instance. The mode of treatment adopted by me therefore, has been to give one dose of calomel, from 15 to 20 grains to an adult, followed up four or five hours afterwards with a purge of magnesia sulphas. in infus. sennæ. Two hours from the time of giving the purgative, were administered from seven

eight grains of sulphate of quinine every four hours. In some cases it was necessery to repeat the calomel and the purgative, but not in all.

When great irritability of stomach existed, I prescribed instead of the senna and salts, the extract of colocynth fifteen grains, combined with five of calomel; and when such was the treatment, the result was that in upwards of two hundred patients, consisting of European families, not one of my patients died. They were generally well on the sixth day, and able to resume their respective occupations.—*India Journal of the Medical Sciences.*

Notices on Medicinal Plants growing in the Colony of British Guiana.

By Thomas J. M'Lennan, Esq., Demerara.

1. *Guana Brost*—so named by the Dutch creoles, from being the principal food of this animal, which is of the Laceita tribe, of a beautifuly green colour, much esteemed by many of the older inhabitants as a delicate article of food. This plant grows in the rich alluvial plains of the Demerara and Essequebo rivers, runs for support and entwines itself on bushes and other contiguous plants. It has not, as far as I know, been much noticed by writers on Botany, but from all the accounts given of the guaco, it has very great affinity, and I will leave it to the Society to determine and give it an appropriate name. The flowers are corymbiform, axillary, of a dull whitish colour, and when mature of a reddish hue. Class syngenesia; order polygamia equalis; there are three fasciculi of florets in each tubular calyx; the stamina equal, style longer, terminating in double reflex hooks, one behind the other. They gradually ripen into down, which is wafted every where by the wind. It is always in flower in the rainy season, and wherever it grows its odoriferous exhalations perfume the air; its leaves are in opposite pairs, on long foot-stalks, cordiform and pointed, light-green, rough, thick, succulent and easily broken; when rubbed between the fingers in a fresh state it smells something like, but more fragrant, than turpentine. It is of frequent use among old women as an excellent dressing—leaves bruised into a pulp in form of a poultice, for obstinate spreading ulcers of the impetiginous kind—and considered also a sovereign remedy for protracted gonorrhœa, and other diseases of the urinary organs attended with mucous discharges.

Within the limits of my own immediate observation, I administered it with remarkable benefit in a case of irritable bladder (cystirrhœa), the outlines of which I will briefly mention, viz.:—

About the Christmas holidays, 1828, a middle-aged Spaniard, a baker, severely suffered from stoppage of urine, in whom I could not pass any sized bougie or catheter. The symptoms being imminent, without loss of time I had recourse to the warm bath, a large opiate suppository, and 2 grs. of opium by the stomach; after this began to take effect, by tranquillizing the system, he began to make water guttatim, which was thick, whitish, and loaded with mucus, and, by the further aid of cathartic enemas, dribbled for a couple of days, till all distention and urgent symptoms gradually disappeared. As soon as he recovered a little, I made particular inquiry into the origin of his case. He said it was of some years' standing, and thought it first proceeded from a pox, of which he never got entirely free from occasional discharges and obstructions, which gradually increased in severity. Now he is become an invalid, his small clothes smelling ammoniacal, his frame reduced to skin and bone; usually passes his water with less or more difficulty—generally whitish, thick, and invariably in the mornings deposits a muco-purulent sediment, sometimes mixed with streaks or clots of blood; and after any unavoidable exposure to cold, or bodily exertion, is always subject to a complete obstruction, such as above mentioned. Under these circumstances, I recommended him to make

daily use of the infusion of this plant as his tea, half an ounce of the leaves and stem together, cut small, to two pints of boiling water, allowing it to stand for some time by the fire side, in a close vessel, and to drink one third, with or without sugar, three times every day. He regularly pursued this plan for six months, and during that time only encountered two attacks of obstruction, which were comparatively mild to the former ones; encouraged by the progressive improvement he experienced, he still persevered, and about the end of the year he was tolerably free from this disagreeable complaint. In May, last year, when I last saw him, the change which its use operated on his whole frame is truly gratifying; he acquired an excellent *embonpoint*, and enjoys good health.

I met with two cases of hæmaturia in boys, which resisted the usual remedies for two days, when the relatives of the first became alarmed; I tried a cupful of the infusion of the dried plant every four hours, with decided and speedy good effects. In the second, I tried the usual remedies, as in the first instance, with no benefit, which quickly yielded to the infusion with convincing result. A table spoonful of the fresh juice three or four times a day, invariably removes gonorrhœa among the blacks.

The last case I have at present to relate, in which the efficacy of this plant was manifest, from the rarity of its occurrence, the difficulty hitherto experienced in curing it, and the unexpected salutiferous effects of this remedy, deserve to be recorded. In October, 1831, a lad of 18 to 19 years of age, an apprentice to a bricklayer, was extremely debilitated and reduced to a skeleton, by passing coagulating urine. He had previously consulted two medical gentlemen in very extensive practice, without deriving any benefit whatever, but rather getting worse. The water he passed was of a whey colour, and in less than three minutes would change into a solid coagulum, and assume the shape of the vessel containing it. On one occasion, after accidentally getting wetted with rain, a chilliness and coldness ensued, and the urine coagulated in the bladder itself; could make no water, and greatly suffered from tension and pain. I was under the necessity to inject warm water, slightly alkalized, with one of Weis's stomach pumps, to which I adapted a silver catheter, and continued injecting and withdrawing till the whole was liquefied. I gave him, from time to time, some of the saturated tincture, in which was dissolved ten grains of the bicarbonate of soda to every ounce, a liqueur glassful every morning and evening. In the beginning of December the disposition to coagulate gradually diminished, and his flesh and strength increased; at the end of February he was remarked to be stouter and in better condition than ever he was in his life. In March, the commencement of the dry season, he resumed his work, and no symptom of his complaint has since returned. Its sensible action on the system is increasing the secretion of the kidneys, and producing a new change in the urine, of which it smells. Drinking from one to two pints of watery infusion, warm, is a very active diaphoretic, of which the perspiration and the linen next the skin smells.

2. *Aristolochia—Siphoflora*—The flower of which is a striking representation of a German tobacco pipe, grows on the sandy banks of the Essequebo River; it is a climber, ascending to the tops of the highest trees in its vicinity; the leaves solitary, alternate, three-lobed, flowers axillary. Class gynandria; order hexandria; no calyx; stamina situated outside and at the base of corolla; the pistillum is entirely immersed within it. The corolla forms the large crooked bowl, terminating in a long tube, inside studded with strong bristles on crimson bases, and gradually become fine hair as they descend the tube; this gives a marbled appearance to the flowers. The capsule is long, hexagonal, six-celled, containing many black, triangular, flat seeds,

packed over one another in close columns. The tobacco pipe plant has a peculiarly strong smell, rather unpleasant, and of an extremely permanent bitter taste. It possesses highly powerful febrifuge and anthelmintic qualities, more especially, however, in the worm fevers of children, which, usually in tropical climates, assume the remittent type; their commencement and exacerbations generally come on at night. The negro children are extremely liable to frequent sudden attacks of the most alarming symptoms of a great variety of diseases, chiefly attributable to their disposition to the exuberant generation of intestinal worms, one person not uncommonly passing from fifty to one hundred in a day. In some fatal cases I noticed the intestines perforated; tetanus brought on by them is not an unfrequent occurrence. The chief cause in my humble opinion originates from the great abundance of food within their reach, whereby they incessantly gorge themselves, the ingesta far exceeding the powers of the digestive organs wholly to assimilate, and an excess of chyle for the secundæ viæ to absorb. How the surplus of the sanguifacient fluid may be converted into worms, remains for physiologists yet to resolve. I have seen a few Europeans who have been extremely sober, seldom drinking anything stronger than water, long complaining of doubtful diseases which accidentally turned out to have proceeded from worms. To children labouring under this kind of fever, the object of immediately expelling worms is not the safest plan—an emetic first, and then a gentle cathartic; to begin with a strong infusion of the root or stem, giving a wine glassfull every three or four hours, moderates the fever and expels the worms in an inanimate state, when the most active purgatives increase the danger and totally fail, by increasing the irritability of the alimentary canal. The most violent attacks of this fever are frequently accompanied with convulsions at the onset, which are succeeded by delirium and drowsiness. The cold affusion frequently repeated, with a free use of this infusion, speedily act with the happiest effect. A blister in severe cases, applied to the back of the neck, is of great assistance, continuing the infusion; sometimes for a change mixing it with kina bark, generally restores the little patient to his usual state of health.

3. *Hura Crepitans—Sand Box-tree*—The capsules of which contain from twelve to fifteen white flat seeds enveloped in a strong parchment-like covering, of a milky agreeable taste, not unlike sweet almonds; but, after a while, leaves an acrimonious sensation on the palate and root of the tongue. They yield a large proportion of oil, possessing very active purgative properties; one or two of the seeds, eaten by an adult, operates to such a degree, with little or no griping, as to produce tenesmus; it however causes nausea, which acts with great energy on the biliary organs, and speedily evacuates the contents of the bowels. I am firmly of opinion, it is equally powerful and safer, than the expensive and often adulterated croton oil. Seeds could be in great abundance easily procured (for the purpose of expressing the oil) from all the West India Colonies.

4. *Elaterium Reticulatum—Cucumis Agrestis Spinosus*—Grows common in cane fields and pasture ground in Essequebo; flowers twice a year, January, February, and August and September. The fruit is oval, ribbed, prickly, not exceeding the size of a hen's egg; when ripe the skin is hard and coriaceous, inclosing a net-like web with three cells, in which are contained the seeds, which burst out of the capsule by the expansive force of vapour within, through an aperture which opens at the top. Before quite ripe, the web contains a large portion of frothy bitter juice, which is strongly cathartic. The expressed juice, collected and dried in the sun, forms a very active and convenient purgative extract. It is useful in bilious fevers, which in warm countries are generally attended with great irritability of the stomach,

when the use of more bulky purgatives are precluded, as distressing the patient by being most frequently rejected. The dose is from one to two grains, joined with calomel in form of a pill; it seldom requires to be oftener than twice repeated. The webs, when the capsules are fully ripe, freed from the skins and seeds, infused in proof spirits twenty-four to a pint, make a very strong and elegant purgative tincture; a tea-spoonful is a sufficient dose for an adult, to operate briskly. It is often given in dropsical cases as a hydragogue, with much effect in the earlier stages. Two dessert spoonsful in barley water or linseed tea, administered in form of an enema, by a stomach pump, to the quantity of a basin full, is second to none among the various remedies employed for the removal of dry belly-ach.

Remarks on the Waicouri or Waik Root; its uses in Coughs, Phthisis, Scrofula, Dysentery, &c. By John Hancock, M.D.

The waicouri, so highly esteemed as a remedy in these and divers other complaints, is the root of a nondescript plant growing in various inland situations of Guiana. It appears, in some respects, allied to the natural order of apocyneæ; in others to that of bignoniæ; and would seem, if our informants, the Padres of Carony, were correct, to have been for ages kept a secret amongst the Piaches (priests or physicians) of the aborigines, as a sovereign remedy for coughs, catarrh, and pulmonary complaints, as also in dysentery, scrofula, ulcers, &c.

It grows in a trailing or scandent vine, along the banks of the Rio Araturi, Imataka, the Caura, and other tributary streams of the Orinoko, where, by some natives, it is called Aronana, and vejuca de playa (but this applies to a different plant); in respect to its stem and evolutions, resembling the solanum dulcamara. The leaves are oval, pointed, and placed opposite on the stem. The flowers and fruit have not, to my knowledge, been described by any botanist. The root is fleshy and succulent, with a woody fibrous heart.

In sensible properties, it has a peculiar sub-acrid bitter taste when chewed. It is dug up in the dry season, bruised whilst fresh, and the expressed juice formed into an extract, or else the entire root is desiccated by exposure to heat and smoke, to prevent its decay, and the depredation of insects, to which it is very liable. The natives occasionally scrape a little off the dried root, and snuff it up the nostrils, to relieve themselves of catarrh *.

An infusion of the dried root acts as a diaphoretic, or is directed to the kidneys and the intestines. In large doses it is both emetic and purgative. In addition to these effects, it exerts a certain anodyne or antispasmodic influence upon the nervous system, somewhat analogous to that of opium, and without any of the ill effects of that drug. It promotes the healing of ulcers, and is esteemed as an efficacious alterative in cachexies and foul disorders; its most beneficial effects, however, seem to be exerted on the lungs, diminishing that irritability which renders those tender pulmonary organs so obnoxious to the action of the air. In slight cases it is usually taken without other additions—chewed, or infused in hot water. Its efficacy, however, is greatly enhanced by the addition of certain other remedies which are thought to possess similar virtues, and which, used together, are better adapted to the more advanced or confirmed cases of cough, purulent expectoration, and hectic, as also in hooping-cough and asthma. Such additions are the aruca or garden balsam (justicia pectoralis), abrus precatorius, the *balsamo-real* (nondescript), arakusiri, and haiowa.

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* This I was told by Samaroony, an old Guaikie Indian, who said it was considered so useful a remedy, their Piaches never travelled without it.

The addition of sarsaparilla is likewise of great importance, when procured of good quality. Such a combination is justly considered as furnishing a very powerful resolvent remedy, in various chronic complaints, removing obstructions of the viscera, resolving indurated tumours, and promoting the healing of ulcers and other lesions, inward or outward, and against leprous and scorbutic eruptions; but its paramount uses are in cases of cough and pulmonary disorders.

These remedies are taken variously, compounded by the Spanish natives; and, with warm milk or barley water, sweetened with honey or sugar, they are not unpleasant. We should begin with a small dose, and gradually augment it till some sensible effect is produced; then discontinue it for a short time, again resume it in a smaller dose, and so on; thus feeling the way as it were, which is the proper mode of administering alterative remedies in general. The patient should make use of flannel, guard against cold, and adhere to a temperate diet of milk and vegetables, barley water, gruel, rice, &c.

General Remarks.—At the present time, when botany, so far as it relates to the forms of plants, has been ardently cultivated as a separate science—we might almost say as a puerile amusement—its more genuine object, or application to medicine, has been strangely neglected. As one instance amongst many, I shall merely notice here a most preposterous error fallen into by most of our recent writers on materia medica and pharmacy, in confounding the *prunus lauro-cerasus* with the *laurus nobilis*, and ascribing to the latter the poisonous properties of the former! yet, none of our learned botanists have ever noticed this very singular mistake, which writers appear to have repeatedly copied from one another without a moment's reflection. These, and similar errors, however, will doubtless ere long receive due attention from the very able professor of the Medico-Botanical Society *.

I hope to meet with indulgence from the liberal professors of medicine, if I propose remedies which may appear novel or equivocal; especially where, owing to catarrhal affections incident to a variable climate, to scrofulous habit or predisposition, such multitudes fall victims to that fatal scourge, pulmonary consumption: in which too, the common remedies of the shops are, by universal consent, allowed to be almost nugatory. These, I presume, are worthy of a trial here, in conjunction with other approved remedies; and especially the use of vapour baths and frictions, artificial drains, and small bleedings, if requisite †; together with a light course of iodine, or iodate of mercury, nitrous acid, &c. (see M. B. Trans.); inhaling also balsamic or terebinthinous vapours from the surface of hot water; but avoiding the sooty fuliginous matter from burning or boiling tar, or other materials decomposed by heat. The Romans, according to Pliny, were accustomed to resort to the forests abounding with balsamic and resinous woods, for the benefit of those exhalations, and by which, it is stated, they were often cured of consumption.

It may be thought that the medicines here mentioned are too multifarious: if, however, we would seek a remedy for consumption, it must not be a mere simple for the cure of corns, but one which is capable of altering the secretions, and, to a certain extent, changing the habit of body. Such obstina te

* This subject, and the importance of the native plants, could not be better illustrated than has been done by Earl Stanhope, the worthy and learned president of the Med. Bot. Society, in his very able and lucid discourses. Is it to a fear of the imputation of empiricism, or employing remedies sanctioned by the usage of the vulgar, that we must attribute this neglect of the native treasures?—in preference to which, any decayed rubbish of the shops is employed.

† Blood-letting is often of very great service in chronic, as well as acute diseases; this fact is fully exemplified in veterinary medicine.

disorders as consumption and scrofula, can only be removed by effecting a material change in the prevailing diathesis: this is not to be done by trifling and wasting time in the employment of single remedies—watching incidental symptoms, or amusing the patient with *expectorants*, laxatives, composing draughts, &c.

The present practice seems, in some respects, rather to be *opposed*, than conducive to the cure of consumption, or the healing of ulcers in the lungs. Most physicians (I speak from what I have seen abroad) incessantly administer expectorants, or agents which, by their irritating effects, promote the secretion from those tender, relaxed, or ulcerated surfaces, instead of repressing and diverting it into other channels; ever intent on keeping up a discharge—attenuating or incrassating, as directed perhaps by caprice, or the fancied pathology of the disease—not reflecting that the principle they pursue is the same as that of applying irritants to an issue to keep it open, that these means tend only to enlarge the breach; that is, to vellicate the lungs or bronchial vessels, and consequently to render them more irritable and susceptible to the action of the air. Instead of this, every means ought to be used to repair the lesion—to brace and consolidate the enfeebled parts. As the action of the air is pernicious to such delicate structures, especially when ulcerated, it should be our endeavour to augment their power of resistance and absorption, rather than, by relaxing their surfaces and increasing secretion, to render them more susceptive of hurtful impressions.

From mistaken principles of pathology, conclusions are not unfrequently drawn, which are equally erroneous, respecting the value of remedies: thus, for instance, in respect to elicampane—proved by the experience of ages to be deobstruent, tonic, and to possess some virtues in pulmonary complaints, although seldom efficient alone—Dr. Cullen, whose authority is most overwhelming, sets it down as effective in such cases (pulmonary disorders), because he had not found it to increase *expectoration!* This hint was quite sufficient to explode the remedy in the minds of his followers. It is not from expectorants, or other local agents, acting on the lungs merely, that we can hope to find remedies for advanced pulmonary disorders, or without previously altering the condition of the solids and fluids of the whole body.

To accomplish the healing of inward ulcers, we should consider on the means more usually effective in those seated externally. In these cases we find the sarsa decoction occasionally prove useful, and would be much more so, were it prepared by a rational process, and employed with the necessary adjuvants.

In consumptive cases, whether from ulcers of the lungs or general marasma, the genuine sarsa ought, I conceive, to be regarded as one of the most essential auxiliaries, and great care should be devoted to the choosing and duly preparing it.

It appears to me, that the active principle of sarsa is either identical, or intimately connected with, that which rises in the coction, and escapes in that strong odour which we perceive in the vapour of genuine sarsa, especially when strongly boiling: the energetic principle is thus partly volatilized, whilst a part thereof is probably fixed, or, in some measure *oxidized*, by that process—forming insoluble compounds.

It is a fact little known, or not adverted to, that the active principle of sarsa is but sparingly soluble in water; by the College directions, the *decoction*, when prepared, amounts to only four pints from the pound of sarsa: so small a quantity of water could take up but a very small portion of the active properties, from a pound of the genuine root; this may be proved by *digesting* the exhausted dregs of the decoction in alcohol, which will afford a tincture strongly impregnated with the qualities of the sarsa, if it be of the

proper kind; this preparation being withal boiled for hours, can indeed possess but a very insignificant portion of the medicinal powers of the root.

We often hear it said, that the sarsa possesses but very little activity as a remedy; I should think, indeed, it could have little or none, in the way it is prepared.

The discoveries of certain continental chemists, who assert they have detected the whole of the active principles of this root, in the form of a white powder, may not, perhaps, be worthy of entire confidence; but this matter requires further investigation.

The London Medical
AND
Surgical Journal.
Saturday, July 2nd, 1836.

APPOINTMENTS IN KING'S COLLEGE—FAILURE OF HOSPITAL SCHOOLS.

When we spoke, a short time since, of the state of King's College, and of the narrow and confined principles on which it was conducted, we mentioned that several of the chairs in the faculty of medicine were vacant, and expressed a hope that they might be filled by the most worthy individuals, without reference to their creed, or anything but their characters and abilities. That institution had been injured by a system of policy originating in the most illiberal and contracted views; and we had trusted, that having paid dear for its experience, it would not again pursue the same unfortunate course. With a consistency, however, which, in a better cause, would have been worthy of the highest praise, the directors of King's College have elected persons to the vacant offices, who have little to recommend them, except that they are either friends of some of the committee, or that they are of the right high church party. The *Gazette* sees the unfortunate condition in which its pet school is placed, and endeavours, by a sort of flourish of trumpets, to drown the lamentations of some, and the jeers of others. It puts forth a paragraph under its leader—much in the same way that the appointment of a new ministry forms a prominent feature near the leading article of a newspaper—to the effect that Mr. Mayo is appointed Lecturer on Surgery and Physiology, Mr. Partridge is to be sole Lecturer on Anatomy, Mr. T. Forbes Royle, the author of "Botany of the Himalayan Mountains," is appointed to the chair of Botany, and Mr. Fergus succeeds Doctor Watson as Professor of Forensic Medicine. We do not find fault with the two first appointments, they are old servants; whatever their capabilities, long servitude entitles them to promotion; but who ever heard of Mr. T. Forbes Royle, author of the "Botany of the Himalayan Mountains?" Who is Mr. Fergus? What are their capabilities as lecturers? Were there no other candidates in the field? Was it not *possible* to get some men of established reputation, known as scientific individuals, and capable of affording instruction to students? or did every such person shrink from a connection with a half ruined medical school? It would be well for the directors to answer these questions. It would be well for their own credits' sake, and for the interests of the school. We fear that no one of established reputation could be prevailed on to join it.

There is no honour in being elected to a *Professorship* in such an establishment, where the merits of the candidates are never considered, but where party feeling, politics, and a particular creed, are looked upon as the necessary and highest qualifications. We ask again, what is the result, what must be the result of these proceedings? Why, a ruined establishment, a gradual falling off of the pupils, until the school will be obliged to be closed for want of them.

Previous to the College having acquired its present reputation for a line of policy injurious to the best interests of science, the candidates for chairs in the faculty of medicine, were numerous and of the highest rank; but the committee of the institution spurned the offers of men who would have been ornaments to their establishment. The course adopted by the directors, must by this time be found to be truly unfortunate. They coquetted with Drs. Paris, Gregory, and Webster, until those gentlemen left the institution in disgust; and now, in the hour of need, the students of the College must be lectured to, by a gentleman only known, if known at all, as the author of a book on the Botany of the Himalayan Mountains, and by a Mr. Fergus—from where?

In offering these observations, we should be the last to say any thing offensive to either of the gentlemen whose names we have mentioned; but when they are preferred to better known and popular lecturers, such as Dr. Sigmond, Dr. Steggall, and Dr. Gregory for Materia Medica, and Dr. Clendining, and even Dr. Cumming, for Medical Jurisprudence, we cannot help animadverting on the impolicy of such appointments. It forcibly reminds us of the axiom, "*quos Deus vult perdere*," &c.

The establishment of a number of medical schools in the metropolis, within the last three or four years, has been attended, at least, with one benefit. It has afforded a large field for competition, and has called forth the energies of the various lecturers. That all these institutions should be successful, is more than could be expected, and accordingly we find that many of them are in a deplorable state. What have become of some of the Hospital schools, and the assumption that a school in connection with a hospital, is the only one fitted for the student? How strong is St. Thomas's, or the London, or the Middlesex, or the Westminster, or the Charing Cross Hospital schools? It would appear, if the returns of students were given, that there are some at least, who think medical knowledge can be acquired as well at a distance, from a hospital, as within its walls, or under the protection of its sheltering wings.

It would be well to inquire into the causes of the failure of most of these schools of medicine, and some of these causes may be traced to a narrow system of policy, to incompetent lecturers who bought their appointments, and others to an exorbitant scale of fees. It is true the London University, the most expensive medical school in the metropolis, has a very large class, but that class has been acquired on the reputation which the University has worked out for itself, by striking out into a new line, as it did at its commencement, and boldly contending for a more extended course of education than was then given, and electing its professors for their talents and reputation, without reference to a particular form of creed. It is clear, however, that the prosperity of the London University must decline, unless its fees are reduced.

RESIGNATION OF PROFESSOR QUAIN OF THE LONDON UNIVERSITY.

We have been informed, upon authority upon which we can rely, that Dr. Quain has resigned the Professorship of Anatomy in the London University. It will be a difficult matter to fill this chair, after one who was one of the most able, eloquent, and scientific lecturers in this country.

PROGRESS OF REFORM IN THE ROYAL COLLEGE OF PHYSICIANS.

The Royal College of Physicians has determined on a new and unsatisfactory step in reform, that of selecting a few of the oldest licentiates for admission into the fellowship. They very foolishly suppose that this partial and insignificant liberality wil

give satisfaction to the profession, but we really do not know to whom save the favoured few who in their old age are admitted by courtesy to their rights, which if enjoyed in manhood, might be something. Let us suppose that a dozen or two of the members of the College, who are over sixty years of age, are made fellows, we are utterly at a loss to conjecture the degree of pleasure they may feel on being placed at the bottom of the list, and under men younger than some of their sons. It is not that they will enjoy the spurious distinctions according to seniority and eminence, but only according to admission into the college. It must be very gratifying to Dr. Haslam, Dr. Clutterbuck, Dr. Farre, Dr. Johnson, Dr. Copland, &c., to be placed below their sons, or those who might be their progeny, in the list of junior fellows. It must also give indescribable satisfaction to the rest of the two hundred and fifty members, and all must rejoice at such a noble achievement by the College. Such inch-by-inch reform will please no one, not even those who are complimented by a preference. It may be called a step in reform, but it is a very short one, and in our opinion a very false one.

PETITIONS AGAINST THE POOR LAW CONTRACTS.

It is a fact generally admitted, and lamented, that of all professions the medical is the least united, that its members have little or no unity of purpose, and when an object is to be gained, there is none of that *esprit du corps* which distinguish the other learned professions. It has been objected that the medical practitioner has little or no time to attend to matters which only indirectly concern himself, and that unless it is a business which directly affects his own interest he is not doing justice to himself by interfering in it. This line of reasoning and the practice resulting from it, have done much towards degrading the profession, and have allowed injuries to be inflicted upon it, which, had a better spirit prevailed amongst its members, never would have been the case. The progress of medical reform has been long and tedious from this apathy, and the acquirement of the just rights of the profession has been delayed by the same cause. We are glad, however, to observe with regard to the Poor Law Contracts, that a better spirit is prevailing abroad—and that medical men are petitioning the legislature from various parts of the country on this subject. We hope that the spirit will become general throughout the empire.

The injuries inflicted on medical men by the atrocious system pursued by the Poor Law Commissioners may not, and does not affect every practitioner alike, as it necessarily falls heavier on those who are *obliged* to save themselves by entering into contracts to attend on the poor, but they affect every man as a member of a high and dignified profession, which by such proceedings is degraded and debased. We trust, that this is the spirit in which the profession in general will look upon these medical contracts, and the arbitrary power exerted by the Boards of Guardians; and we trust, acting on this principle, that there is not a town or county in England from which petitions will not be forwarded to Parliament on this subject.

INFIRMARY FOR DISEASES OF THE RECTUM.

The first anniversary of this Institution took place on Thursday se'nnight at the Albion Tavern, Aldersgate Street, the Lord Mayor in the chair, supported by Mr. Justice Pattison, the Sheriffs of London and Middlesex, Aldermen Pirie and Smith, and about fifty members of the Medical profession; among whom were Dr. Haslam, Dr. Ryan, Dr. T. Blundell, Mr. Salmon, Mr. Drysdale, of Kennington, Mr. Finchan, of Spring Gardens, Mr. Hughes, of Holborn, Mr. Daniells, of Bishopsgate Street, Mr. Giles, of the Strand, Mr. Holt, of Westminster, Mr. Webster, of Dulwich, Mr. Hovill, of Clapton, Mr. Raines, of Aldersgate Street, Mr. Elliot, Mr. Maiden, Mr. Vincent, and Mr. Taylor, of Shadford, Mr. Bacon, and Mr. Bowhill, of Hampstead, Mr. Caruthers, of Bromley, Mr. Holding, of

Ludgate Hill, Mr. Wing, of Aberdeen Place, Mr. Eagleton, of Chapel Street, Mr. Linacre, of Aldermanbury, Mr. Smith, of Goswell Street, Mr. Evans, of Blackman Street, Borough, Mr. T. Bell, of Broad Street, Mr. Coward, of Hoxton, and several others, whose names escaped us. There were about one hundred and fifty gentlemen present, among whom were several eminent bankers and merchants of the city. The Lord Mayor discharged the duties of chairman with great taste and ability, and shewed the warmest interest in the new and valuable public charity. He gave the best proof of the estimation in which he held it, by subscribing 20*l.* Mr. Justice Pattison followed his example, as also did the Sheriffs, Sir Francis Ommanney, the Aldermen, and many other individuals. The amount of donations received during the evening was 477*l.*, with the subscriptions of 101 new subscribers. The following report of the Committee was received with great applause.

Report of the Committee, 1836.

The Committee consider it their duty, on the occasion of this the first meeting of the friends of the charity, to present a brief report of its nature and objects, its actual circumstances, and prospects of future utility.

The founder of the institution having, in the course of his professional avocations, ascertained beyond the possibility of doubt the serious prevalence of diseases of the rectum, formed the design of establishing an asylum for the specific purpose of administering gratuitous relief to the labouring and other poor afflicted with these distressing and dangerous complaints, upon principles of treatment which, in his own experience, had proved eminently serviceable, and by means of which he considered that not only a vast amount of human suffering and disability might be prevented, but many valuable lives saved to the community.

This project, imparted in the first instance to a few philanthropic individuals, has met with great and well merited encouragement, and the Committee have the particular satisfaction of congratulating the governors and friends of the charity on its flourishing position, both in respect to the amount of its disposable funds, and the signal success so gratifying to humanity, which has attended the professional labours devoted to its laudable design.

Besides the timely and effectual succour it affords to the poor, the institution possesses the peculiar and most desirable advantage of proving an antidote to the baneful system of quackery so frequently exercised upon the subjects of these painful diseases, which involving from their nature an anxiety for concealment, are beyond all others liable to be made by empirics a source of grievous imposition on the nervous and timid.

Nor is the establishment, the Committee will further take leave to remark, less valuable as a fertile field of observation and instruction to the younger members of the medical public, a benefit which will be the more obvious when it is added, that the practice has been thrown open gratuitously to every member of the profession.

Although the institution has been opened but a few months, above one hundred poor have received the benefit of its assistance, of whom forty-four have been discharged entirely relieved of the miserable afflictions they had endured, in some instances, for many years.

Whilst the Committee express their unfeigned gratification at the degree of success which has hitherto attended this benevolent project, they cannot but most earnestly appeal to its original promoters, to the friends generally of their suffering fellow creatures, and through all the sympathies of our common nature, for continued and increased exertions of liberality, with a view of carrying into execution the main and ultimate object of the founder, that of erecting or appropriating a building for the purposes of the charity, so as to provide a limited number of beds for those patients whose cases require constant vigilance and unremitting care.

The Committee will not longer trespass on your attention, than to observe, that as yet the proposed rules of the institution are not sufficiently matured for your consideration; but in the course of the year they expect to lay before the governors and subscribers such regulations as it is hoped will meet their entire approval.

The health of F. Salmon, Esq., the founder of the institution, was next proposed, and received with loud applause. Mr. Salmon returned thanks in a well delivered speech, which displayed more of the features of a practised orator than what could be expected from a surgeon, in which he pourtrayed the frequency of diseases of the rectum, the inattention paid to them by the majority of the profession, the frequency of applications at the public hospitals without relief, and the advantages derived by the number of patients alluded to in the report of the Committee. He further remarked, that many reasons retarded the cultivation of the study of the diseases for which the institution was required and established, as the objection of patients, and their reluctance to apply for medical advice; and the inattention of a great majority of his profession to the alleviation of such maladies. He concluded by stating that he should be most happy to admit medical practitioners to observe his practice, to hear the statements of patients, and to judge for themselves of the benefits afforded by the institution. He felt indebted to any member of his profession who recommended unfortunate sufferers, and he took the pre-

sent opportunity of stating that letters of recommendation were not required. Females were admitted on Tuesday, and males on Friday. He concluded by stating, that he felt proud and honoured by the support of the large assemblage present, and he entertained no doubt of the munificient support of the public for the institution.

The healths of Dr. Haslam, and the members of his profession were drunk; and Dr. H. returned thanks with his wonted power and ability.

MEDICO-BOTANICAL SOCIETY.

Wednesday, June 22, 1836.

DR. FARRE IN THE CHAIR.

VARIOUS specimens of drugs and chemicals were exhibited on the table, by the permission of Mr. BATTLEY, respecting the preparation of the *extract of conium maculatum*. Dr. Sigmond made the following remarks:—

Various have been the methods proposed, by which an extract of hemlock possessing all its important and valuable medicinal properties might be obtained; for whilst the German physicians, and more particularly Stoerk, who first drew the attention of the public to it, proclaimed its power in palliating cancer, and in the cure of scrofulous, and syphilitic ulcers, the British practitioner called it inert and useless, until it was very properly suggested that we knew not how to obtain the same preparation. (He, Dr. Sigmond) had occasion lately to point out the best mode of drying the leaves; and he now wished to direct the attention of the Society to an extract which he had an opportunity of seeing prepared by Mr. Battley, and which far surpassed any that he had ever had an opportunity of judging of. Mr. Squire had spoken of his process by spontaneous evaporation at the heat of the laboratory, and the extract thus prepared had been laid before the Society; this proccss was suggested some time since, or one nearly similar, by Mr. HOULTON, who directs that the juice should be exposed to a free current of air, when in three days the evaporation is completed. A very sensible letter on the subject will be found in the twelfth volume of the Lancet, in answer to some objections which were raised and which in his, (Dr. Sigmond's) opinion, remains unanswered; and the general opinion amongst those who have employed the extract thus prepared, is certainly not favourable, though he was willing to acknowledge that it is often times very superior to the common extract of conium of the shops, which is too often a most inefficacious remedy.

The plan of preparing this extract he had witnessed in Mr. Battley's laboratory, requires some attention, and can best be performed by those accustomed to watch the various stages of pharmaceutical operations. About 100 weight of the leaves of the conium maculatum were bruised and pressed by the screw press; they yielded about seven gallons of juice, to which one of water was added. This fluid was immediately placed upon an evaporating dish upon the fire. Before the temperature was very considerably increased a quantity of green-coloured matter began to float upon the surface; this was taken off by means of a thin dish; when the boiling temperature is reached no more of this green matter is given off; the boiling goes on until about half the fluid is evaporated; the remaining fluid is suffered to stand until it is cold, when a precipitation of a dark green matter takes place, from which the fluid is separated again to undergo evaporation, when precipitation again occurs. The remaining fluid is now boiled until it acquires the consistence of a syrup, when the matter first collected by filtration and precipitation is mixed with it and further evaporated; the result of which is an extract, which is of the most powerful nature, possessing the highest narcotic powers. The quantity of muriatic acid present is quite remarkable, the addition of nitrate of silver to the produce of the first coction, muriate of silver is thrown down to a great extent; and of this he, (Dr. S.) could show the proof in the horn silver, it has been boiled in nitric acid, and with the blow pipe the silver may be obtained. He had witnessed all the different stages of the operation, and now laid before the Society the whole of the results. Here were the different residuums, and he proved the existence of the muriatic acid by direct experiment, and exhibited a portion of the extract he saw made.

HISTORY OF MEDICAL JURISPRUDENCE AND STATE MEDICINE.

(*Continued from p.* 703.)

MEDICAL jurisprudence, as a science, cannot date farther back than the middle of the sixteenth century. The Emperors Rudolf, Sigismund, Albert, and Maximilian I., had successively attempted reforms of the criminal codes of Germany, by the introduction of a uniform system of legislation; but this idea was first reduced into practice by George, Bishop of Bamberg, who published, in 1507, a German penal code, drawn up and systematized by John, Baron of Schwartzemburg, which was speedily adopted in the petty States of Bayreuth and Anspach, and afterwards in Brandenburg. The other States of Germany, from narrow views of self-interest, and the jealousy of neighbouring innovations, for

some time resisted the introduction of this code; and even Charles V., in the plenitude of his power, made two unsuccessful attempts to persuade the diet of Nuremberg to adopt the project of a similar code; but his perseverance finally prevailed, and the diet of Ratisbon, in 1532, proclaimed as the law of the empire, the criminal code since well known by the title of *Constitutio Criminalis Carolina*. This celebrated body of jurisprudence, first published in 1553, was founded on that of Bamberg, and both were remarkable as requiring the evidence of medical men in all cases where their testimony could enlighten the judge, or assist the magistrate, as in cases of personal injuries, murders, pretended pregnancy, abortion, infanticide, hanging, drowning, poisoning, &c. This is the true era of the dawn of legal medicine; and we must regard Baron Schwartzemberg as the father of medical jurisprudence, and Germany as the country which gave it birth.

To the same nation we must attribute the glory of having produced the man who first dared to throw the shield of medical science over the victims of a barbarous and dark fanaticism.

The belief in the powers and influence of witches and sorcerers was in full force in the sixteenth century.

It is computed, that in Lorraine, 900 persons, of both sexes, were burnt alive in fifteen years, for the imputed crime of sorcery; and that, in the electorate of Treves alone, within a few years, 6,500 individuals had perished in the flames for the same imaginary crime. In various parts of Germany and France, instances of supposed demoniacal possession were perpetually occurring; and at Freidburgh public prayers were ordered to assuage this dire calamity. Weiher, physician to William, Duke of Cleves, had the boldness openly to impugn these superstitious notions, in a curious work, entitled "De Præstigiis Dæmonum et Incantationibus," printed at Basil in 1568. He undertook to prove that magicians and demoniacs ought to be considered as unfortunate persons, subject to hysteria and hypochondriasis, and that they should rather excite pity for their infirmities, than be obnoxious to punishment; and he ridiculed the ordinary modes of persecution to which these unhappy beings were subjected.

This attack on a popular superstition, and on a powerful and lucrative engine of clerical influence, aroused alike indignation and vengeance against the daring innovator; and Weiher was himself arrested as a magician, dragged before a tribunal, and owed his liberty and life to the influence and earnest solicitations of his ducal patron. Weiher was too enlightened for the age in which he flourished; for we find his opinions attacked in no measured terms by two of his contemporaries. Erastus and Scribonius*. The belief in diabolical illusions and witchcraft was entertained in this country so late as the seventeenth century. Sir Thomas Browne, the author of the Religio Medici, who was called on by Lord Chief Baron, Sir Matthew Hale, to give evidence in the cases of two unfortunate persons indicted for having bewitched two children, and caused them to have fits, who were tried and executed at Bury St. Edmunds, deposed—

"He was clearly of opinion that the fits were natural, but heightened by the devil, co-operating with the malice of the witches, at whose instance he did the villainies," and he added, "that in Denmark there had been lately a great discovery of witches who used the very same way of afflicting persons by conveying pins into them." This relation of Sir Thomas Browne, says the historian of the case, made that good and great man, Sir Matthew Hale, doubtful; but he would not so much as sum up the evidence, but left it to the jury, with prayers that the great God of heaven would direct their hearts in that weighty matter. The jury accordingly returned a verdict of guilty, and the executions were amongst the latest instances of the kind that disgrace the English annals.

Sir Thomas Browne was born in 1605, was a celebrated physician in London in 1646, and was knighted by Charles II.

The publication of the Caroline Code very naturally attracted the attention of the medical profession, and many of its members commenced the study of forensic medicine. The kings of France soon felt the necessity of a similar code. In 1556, Henry II. promulgated a law, by the virtue of which death was inflicted on any woman who concealed her pregnancy, and destroyed her offspring. In 1606, Henry IV. presented letters patent to his first physician, authorizing him to appoint two surgeons in every city and important town, whose exclusive duty it should be to examine all wounded or murdered persons, and make reports thereon. This law was amended by Louis XIV. in 1667, who declared that no report should be received, unless sanctioned by one of these surgeons. These were named medical councillors to the king; they were often appointed by court intrigue, and became so corrupt that they were suppressed in 1790. There are still, however, district medical reporters in France, as will appear hereafter (Fodere op. cit.) In 1692, physicians were associated with surgeons.

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* Erasti Disputatio de Lamiis. Basil, 1572. 4to. Scribonius de Sagarum Natura et Potestate. Helmstadt, 1584. 4to.

Various detached treatises on different branches of legal medicine appear to have been produced towards the close of the 16th century. Ambrose Paré wrote on monstrous births, simulated diseases, and on the art of drawing up medico-legal reports. 1575. In 1598 Severin Pineace (or Pinæus) published at Paris his treatise *De notis Integritatis et Corruptionis Virginum;* a book still quoted on that subject.

The earliest systematic work on legal medicine is unquestionably the book *De Relationibus Medicorum* of Fortunato Fidele, published in 1598 in Sicily. As might be expected in his age and country, the opinions of this physician are greatly warped by his servile deference to the dicta of the canon law, and his submission to its clerical expounders. It consists of four books, of which the following may be received as an outline of the contents, viz. I. On Public Food; the Salubrity of the Air; Pestilence. II. Wounds; Pretended Diseases; Torture; Injuries of the Muscles; Medical Errors. III. Virginity; Impotence; Herditary Diseases; Pregnancy; Moles; the Vitality of the Fœtus; On Birth; Monsters. IV. Life and Death; Mortality of Wounds; Suffocation; Death by Lightening and Poisoning.

The rapid progress of anatomy in the commencement of the 17th century, by the labours of Sylvius, Vesalius, Fallopius, and Eustachius, had a surprising influence on the progress of medico-legal investigations, which became speedily apparent in the publication of the great and invaluable *Quæstiones Medico Legales* of Paulo Zacchia; which appeared in successive volumes from 1621 to 1635.

Zacchia was one of the most eminent physicians of Italy. His celebrity brought a vast body of facts on medical jurisprudence under his cognizance; and his work, which has gone through many editions, is still regarded as the great magazine of medico-legal lore, illustrated by immense erudition, and by a subtile and refined discrimination. Though Zacchia be tinctured with the superstition of his age, in what relates to demoniacal possession, and some other subjects, yet his judicious remarks on the gross injustice and impropriety of classing as demoniacs those females in whom suppressed catamenia had produced mania, or men in whom frenzy had originated in a melancholic temperament, place his physiological reasoning and his medical indications in a favourable point of view; and, perhaps, we ought to place his recommendation in such cases, not to neglect the prayers of the church, while suitable remedies are prescribed, as much to his anxiety to avoid offence, as to his faith in the efficacy of the former.

With the imperfections that were unavoidable in an age in which physiology was in its infancy, chymistry imperfect, and ere our illustrious countryman Harvey had demonstrated the circulation of the blood, the work of Zacchia will ever be considered as one of the landmarks of medical jurisprudence, and remain a stupendous monument of his learning and sagacity. It was written at different times; abounds in repetitions, and occasionally in contradictions; circumstances which render it better suited for the consultation of the learned than the information of the student.

The following is an outline of the contents of the first volume. *First Book:* Age; Legitimacy; Pregnancy; Superfœtation and Moles; Death during Delivery; Resemblance of Children to their Parents. *Second Book:* Dementia; Poisoning. *Third Book:* Impotence; Feigned Diseases; the Plague and Contagion. *Fourth Book:* Miracles; Rape. *Fifth Book;* Fasting; Wounds; Mutilation; Salubrity of air, &c. The second volume is filled with casuistical questions. This work is highly esteemed as one of great authority. Zacutus Lusitanus, in alluding to its value, exclaims: emi, vidi, legi, obstupui. It is justly considered the most celebrated of all the Italian works on the subject.

The next important step in the history of our science is due to Harvey, who investigated the difference between the lungs of the fœtus and of an infant that had breathed, and pointed out how this fact might be available in alleged cases of infanticide. It should, however, be admitted, that long before, the difference in colour, consistence, and weight, between the fœtal and adult lungs of animals, had been remarked by Galen, but who had not applied it to any practical use.

Almost at the same time appeared two valuable treatises by Melchior Sebiz, at Strasburg, viz. *De Notis Virginitatis* (1630), *Examen Vulnerum* (1638). In the first he maintained that the existence of the hymen was the indisputable mark of virginity; an inference which was warmly denied by Orazio Augenio, and defended by the celebrated Pietro Gassendi (*Opera*, VI.), &c. In the second he drew an important distinction between wounds necessarily fatal, and those which become so incidentally.

We must give the next important step to the Danish physician, Thomas Bartholin, who carefully investigated the period of human utero-gestation; and, having confirmed the opinions of Galen and Harvey, respecting the difference between the lungs before and after the first respiration, proposed the hydrostatic test for solving the question, and pointed out the best method of rendering it available in medico-legal investigations. (*De Pulmonum substantia et Motu.* Hafniæ, 1663). The rationale of this process was more fully explained by Swammerdam in a tract, published at Leyden, in 1677—and its first practical applica-

tion was made in 1682, by Jan Schreyer, after it had been investigated by Thurston and Carl Rayger.

This process is the celebrated *Docimasia Pulmonum;* which, till within a comparatively recent period, was considered as an irrefragable test of the question whether or not the child had breathed; but which has given rise to a keen controversy which I shall have afterwards an opportunity of examining. See *Infanticide.* About this period the work of Ambrose Paré, published 1575, which was regarded for nearly a century the only standard authority in France, was superseded by the more comprehensive treatises of Gendri, of Angers, in 1650; of Blegni, of Lyons, in 1684; and of Devereux, of Paris, in 1693. Louis is, however, with great justice, considered as the first who promulgated a just idea of the science to his countrymen. He flourished about the middle of the last century, and will be noticed in the history of that period.

While these important steps were in progress, Germany, the country where medical jurisprudence took its rise, had instituted public prelections on this important branch of medical and forsenic education. About the middle of the 17th century, Michaëlis gave the first lectures on this subject at Leipsic, which were followed by those of Bohn, Professor of Anatomy and Surgery in that city, who, before the end of that century, had published his valuable works *De Vulnerum Renunciatione*, and *Dissertationes Medicinæ Forensis* (1689), and these were speedily followed by a tract, *De officio Medici duplici, Clinico et Forensi* (1704). In the same period appeared the interesting investigations of Gottfried Welsch, and of P. Amann, on the fatality of wounds*. The celebrated work of Licetus, *De Monstris*, appeared in 1669, at Amsterdam; and it would be unpardonable to omit the vast accessions to medico-legal knowledge unfolded in that noble pathological collection, the *Sepulchretum* of Bonnet. (Lugd. 1700, 3 tom. folio). The mode of conducting medico-legal investigations obtained some attention in France during the seventeenth century, but its institutions were extremely imperfect, compared to those of Germany even at a much later period.

The following were among the German authors of the 18th century: John Bohn, De Renunciatione Vulnerum, 1689, 4to. Amsterdam. Valentini, Pandectæ Medico-Legales, 4to. Francof. 1702. Fred. Boerner, Prof. Med. Wirtemburg, 1723. Several Dissertations. Kannegeiser, Inst. Med. Leg. Michael Alberti, Prof. Med. Hall.-Systema Jurisprudentiæ Medicæ Schneeberg, 4to., 1725, tom. vi. Zittman, Medicina Forensis, 40to., Francofurti. Richter, Decisiones Medico-Forenses. Teichmeyer, Institutiones Med. Leg., 4to., Jenæ, 1740. Stark, De Medicinæ Utilitate in Jurisprudentia, 4to., Helmont. 1730. Hebenstreit, Anthropologia Forensis, 8vo., Lipsiæ, 1753. Ludwig. Institutiones Medicinæ Forensis. Fazellius, Elementa Medicinæ Forensis.

The first German work of authority was Bohn's (1689), in which he attempted to discriminate what wounds were necessarily fatal. The next was Valentini's *Pandects*, 1702. Michele Bernardo Valentini published his *Pandectæ Medico-legales* in 1702 (Francofurte), and his *Novellæ* in 1711), which were incorporated, in 1722, into his *Corpus Juris Medico-legale*. This great work contains an excellent review of all that had been done before his time, and is considered by some as equal in value to the work of Zacchia. Valentini was fully aware of the importance of his subject, and strenuously insists, in the preface, on the necessity of cultivating this branch of medical knowledge. Several Professorships for teaching juridical medicine were about this period founded in the German Universities; and very useful though sometimes too diffuse treatises on the subject issued from the German press. The number of successive authors becomes now so great, that I cannot, in this sketch, attempt to mention all, far less to characterize them.

* Welschii Rationale Vulnerum Lethalium judicium, 1660.

Ammanni Irenicum Numæ Pompilii c. Hippocrate, 1698.

Ammanni Praxes Vulenrum Lethalium, 1704.

Parturition of a Dwarf of thirty inches in height.

A dwarf, 30 inches in height, has been recently delivered of a full grown infant at Warsaw, which has been exhibited for money. The delivery was effected by a painful operation, but the mother is, however, doing well.

The operation is not described, but must have been performed by traction, symphyseotomy, or the Cæsarian section, as the pelvis of a woman of this stature must be too small for the passage of a full grown infant, if begotten by a moderate sized father.

BOOKS.

The British and Foreign Medical Review, a Quarterly Journal of Practical Medicine and Surgery. Edited by John Forbes, M.D.F.R.S., and John Conolly, M.D. No. III. July, 1836.

Revue Medico—Chirurgicale Anglaise et des Sciences Accessoires, Physique, Chimie, Histoire Naturelle, &c. Par Bureaud Riofrey. D.M.P. No. I. Mai, 1836.

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THE

London Medical and Surgical Journal.

No. 24. SATURDAY, JULY 9. Vol. I.—(1836).

CLINICAL LECTURE
ON CASES IN THE NORTH LONDON HOSPITAL.

Delivered in June, 1836.

BY PROFESSOR ELLIOTSON.

I have to speak first, to-day, in a case of

Inflammatory Dropsy.

It is a very good illustration of a common affection, which, until lately, was not recognized as an inflammatory complaint, but now is generally considered as such, treated accordingly, and soon cured. Frances Harris, aged 13, was admitted April 19. She is rather plethoric, a school girl; enjoyed good health till about four months ago, when she caught cold, and had headach, sickness, and pain in the right hip and thigh; the pain gradually subsided on taking some medicine. Three months ago the right foot and leg began to swell, and about a month after, the left foot. The face also began to swell about the same time as the right leg. She has had medicines, which have done her no good. Her present symptoms are, considerable œdema of the face and eyelids; also of the hands, and the legs, as far as the knees; the right leg more swelled than the left. The swelling is white, rather soft, and pits on pressure; is also tender; painful on pressure. Abdomen considerably swollen; fluctuates; tenderness at the epigastrium; pain in the head, over the forehead; nausea after food; tongue foul; pulse, 70, full. Bowels regular; has never menstruated; urine increased in quantity, natural in colour, tested with nitric acid; contains no albumen; specific gravity 1.020. You will perceive, by the report I have read, that the girl was very well, before the attack came on, as is usually the case, in this kind of dropsy; it also usually arises from cold, as in this case. You will perceive also in this case, that there was headach, as there is more or less, in these cases generally. The face began to swell as soon as the other parts. In dropsy, arising from organic changes, the face does not begin to swell so early.

Now, there is often no pain in this species of dropsy; you judge of its being inflammatory from the patient's being in good health, previous to the attack, and from the general history of the case. In this, as is sometimes, though seldom the case, there was pain in the affected parts. The urine, in this affection, is seldom diminished in quantity. The

Treatment

was decidedly antiphlogistic; we placed her directly on low diet; we did not give her beef-steaks, and other nourishing things, as they would have done formerly in a like case. She was bled to ℥ xij, and took a purgative twice a-day. This was on the 19th, her day of admission. On the 21st the blood drawn was buffed and cupped: the pain in the head had diminished; there was less nausea, and the bowels had been opened. She was again bled on the 23rd to ℥ xij. This was followed by considerable reduction of the swelling; the tenderness in the lower extremities was less; she was, in fact, in every respect better; the blood was cupped, but not buffed. On the 1st of May she complained of considerable pain in the head; she was therefore cupped in the temples to ℥ xij. The cupping relieved this pain, and she had now no swelling except in the right leg. She had now lost thirty-six ounces of blood; and the disease was almost gone, and I did not wish to take more blood; so to relieve the head, I ordered her five grains of blue pill, three times a-day; she got better as soon as the mouth was sore, which was in the course of a few days. The catamenia also came on for the first time. The urine was tested again after taking the mercury, and it was found albuminous; it is said that the urine will become albuminous, after the administration of mercury; whether it is always the case, I cannot say, but it will sometimes happen. She was discharged on the 7th of June, quite well. The next case is one of

Syphilis.

Eliza Cook, aged 31, was admitted April 4; she is of swarthy complexion; a sempstress. About four years since she had a chancre on the external labium of the right side, for

which she consulted a surgeon, who gave her six pills, which caused the sore to heal directly, and she took no other medicines. Her mouth was not at all affected; she continued free from any syphilitic affection till last June, when her throat became slightly sore, and a number of ulcers appeared in the mucous membrane of the mouth, and on the palate, which, however, healed again in a month, on her taking a little aperient medicine, and employing frequent ablutions. After a slight attack of bronchitis, a short time since, the mouth broke out again, and is now completely lined with foul-looking ulcers, which, however, do not extend beyond the anterior edge of the palate bone; none on the tonstils; throat hot, sore; tongue excessively foul; breath fœtid. An eruption of several copper-coloured spots, on and about the face, not elevating the skin, thickness of the integuments of the nose. Before the mouth became sore, she had violent pain in the head, accompanied by a clicking noise. She has no pain in the head, or anywhere else now, merely feeling languid and weak. Pulse moderate; bowels opened by medicine; menstruation regular, but preceded by leucorrhœa.

Now, we cannot always depend on accounts that people give us of these kinds of diseases. This woman says she had a chancre four years ago, and that no secondary symptoms occurred until last June, a period of three years; and then she had a slight sore throat, which healed in a short time, and she suffered nothing until a short time since, four years after the primary ulceration. Now, I believe it is a fact, whether this woman's statement be true or no, that syphilis will remain for a very long time in the system, without spreading to anything like an alarming extent. I believe, in several cases, I have seen, and where I had every reason to believe the statements of the patients, that only slight secondary symptoms existed for years.

Now, in this case, we ordered a lotion, consisting of a scruple of the solution of the nitrate of silver, to an ounce of water, to be applied to the affected parts. It was only applied twice, in order to see what would be the effect of the mercury alone, five grains of the blue pill being ordered three times a day. She began the pil. hydrarg. on the 9th of April; on the 16th, her gums were becoming tender; the ulcers, many of them, had healed, and the others were healing; on the 16th she was much improved, indeed, nearly well; but had to go out in consequence of the illness of her husband.

There was nothing particular in the treatment of this case: the most interesting circumstance respecting it, is the fact of secondary symptoms occurring so long after the primary affection. I believe I have mentioned to you before, this session, that I have seen the itch remain in one state for a very long period, assuming a kind of chronic character. I believe the syphilitic poison may, in the like manner, remain for a long period in the system. The next is a case of

Inflammatory Jaundice.

Mary Coles, aged 24, was admitted April 28. She is a housemaid; has enjoyed tolerably good health till about two months ago, when having exerted herself, and taken cold, she began to have dull pains in the right hypochondrium, was low spirited, drowsy, and had itching of the skin, lassitude, and soon after her skin became yellow. She was treated antiphlogistically, with some little relief, and was able to resume her usual occupations, in some degree. About a fortnight ago she became worse, and since then has had much fever and more jaundice; at present she is of an orange yellow colour; conjunctiva very deeply tinged; does not see yellow. She has no pain in the side now, but there is tenderness on pressure, over the liver; no pain in the head, or any other part; considerable fever, heat, and dryness of the skin; mouth parched; great thirst; tongue brown in the centre, and dry at the sides; pulse quick, 120. No appetite; sleepless and restless at night; stomach has rejected food since she has been so ill, during the last fortnight. She has nausea, but does not vomit now; last time she vomited was the day before yesterday; no tenderness of the epigastrium or abdomen. Is observed to have slight subsultus tendinum; was a little incoherent and wandering last night. Water high-coloured, fæces pale, but darker than they have been; she had some mercurial medicines before admission; had two stools yesterday; itching of the skin has ceased; menstruation is, and always has been irregular.

Now, it is very common for this affection to be attended with lowness of spirits; there is generally a great depression when the bile becomes mixed with the blood; and also, frequently, great excitement of the skin; not merely lowness of spirits, but drowsiness, general dulness of mind, and lassitude. She was treated by some one antiphlogistically, before she was admitted; her skin was of a deep orange colour generally; when this is the case, the liver is diseased.

The conjunctiva was deeply tinged; this is an important symptom in the diagnosis, for occasionally patients with chlorosis and other affections, may look yellow in the skin, but, on examining the conjunctiva it is found to be white; yet many persons mistake, at first, the one disease for the other. Our patient did not see yellow; this is a very unusual symptom, though it is occasionally present in many of these cases; there has been inflammation of the eyes, so that larger quantities of blood than ought to do went over the transparent cornea.

I had a patient, who only saw yellow with one eye; both eyes were inflamed, but in the affected one there was a vessel distinctly seen crossing the cornea. I have heard of a case of intense jaundice, in which the aqueous humour had become yellow.

The first treatment consisted in cupping her on the right hypochondrium to ten ounces, and giving her five grains of calomel, twice a day; this was on the 28th; on the 29th the report states that the serum of the blood taken by cupping was yellow; she was frightened by the cupping, and became delirious last night; she has had four stools since her admission, twenty-four hours ago; they are dark-brown, copious, and liquid. Thinks herself rather better; there is not so much tenderness of the liver. On the 1st of May the gums were not tender, so she was ordered the calomel three times a day. She had pain come on in the side, for which a large blister was applied, and she obtained some relief from it. On the 4th she became heavy and drowsy; she wandered in the night; the pulse 100 and small; she had an inflammatory state of the head, but she had not strength to bear depiction. The mouth was getting sufficiently sore; the head was shaved, and a blister applied over it; and, as she was so very weak, she was allowed two pints of milk daily; this was on the 5th; the next day, the gums being sufficiently tender, the mercury was omitted; the abdomen was rather better; the head had been relieved by the blister. Bowels open twice a-day; abundance of bile in the motions. On the 7th she was improving, but there was still tenderness of the abdomen; a large blister was applied, and the tenderness of the abdomen relieved.

She continued to improve, and was discharged, well, on the 24th of May.

PATHOLOGICAL OBSERVATIONS ON THE DISEASES OF THE PLACENTA.

Congestion and Inflammation.

BY JAMES Y. SIMPSON, M.D.,

President of the Royal Medical Society of Edinburgh, &c.

(*Read before the Royal Medical Society, November* 20, 1835.)

INFLAMMATION OF THE PLACENTA.

(*Continued from p.* 714.)

The next series of morbid conditions of the placenta to which I have to direct the attention of the Society, consists of inflammation and its various consequences. It is only within these few years, that the state of inflammation has been distinctly recognized by pathologists, as a morbid action liable to present itself in the placenta; and though much of the pathological and nosological history of the disease certainly still remains to be made out, yet I believe a considerable stock of interesting information may even at the present moment be collected in regard to it, by taking a generalized view of the different scattered cases and notices of the affection, which have been published by Brachet in his original memoir on this affection, and by Cruveilhier, D'Outrepont, Dance, Stratford, and other authors.

Placentitis, or inflammation of the placenta, would appear to be in some cases acute, in others chronic, in its character and progress; most frequently perhaps the latter. It may have its seat either in the proper parenchyma of the organ, in the membranes investing its fœtal, or in that investing its uterine surface, or in two or all of these parts at the same time. When seated in the parenchyma of the placenta, or on its uterine surface, it would seem to be in some cases strictly limited to one lobe or cotyledon of the organ; in other cases it coexists in two or more isolated and even distant lobes; but more frequently it appears to attack simultaneously or successively several adjacent lobes, and in this way it may come to involve a third, the half, or even the whole extent of the viscus. In a considerable proportion of instances of placentitis, the inflammatory action seems to be originally propagated from the adjoining substance of the uterus to the placenta, the first symptoms being those usually considered as characteristic of metritis, but in other instances the inflammation appears to originate in, and to be strictly confined to, the tissue of the placenta itself or its membranes, without spreading to the substance of the contiguous portion of uterus; and in other cases, again, there is every reason to believe, that, though originating in the placenta, the inflammation may spread from it to the uterus. The occasional primary origin of inflammation in the substance of the placenta itself seems to be fully proved by various considerations, by its sometimes appearing only in one lobe, or in several circumscribed, distant, and isolated parts of the viscus at the same time, by its attacking one placenta only, in cases of twins or triplets, and by its being occasionally strictly confined in its seat to the fœtal surface or side of the organ alone.

Anatomical Characters of Placentitis.—The modes in which placentary inflammation terminates, and the morbid lesions and products to which it gives rise, differ greatly in different cases, according to the more or less acute or chronic character of the inflammatory action, the particular seat which it occupies, and other circumstances connected with it. In arranging the observations to be made upon the morbid anatomical charac-

ters of the disease, I shall divide it into three stages, the first including the stage of inflammatory congestion, and effusion or secretion of serous fluid; the second that of the effusion or secretion of fibrin or coagulable lymph; and the third that of the secretion or effusion of purulent matter.

First Stage.—In the first stage of placental inflammation, or that of inflammatory congestion, the placenta is larger in volume, and darker in colour, than natural, owing to the unusual accumulation or engorgement of blood in its vessels; it feels comparatively denser or more solid to the touch, and as it approaches the second stage, an effusion of serum, or of serum and coagulable lymph, occurs, and the tissue of the organ becomes more lacerable under the pressure of the finger.

It would be extremely difficult, if not impossible, (if we may judge from the analogy of the lungs and other organs), to distinguish, by any specific anatomical characters, between the sanguineous engorgement of the placenta, which constitutes the first stage of inflammation, and that active non-inflammatory form of placental congestion which I have already endeavoured to describe. Indeed it is highly probable that the non-inflammatory congestion or engorgement occasionally passes into that which is inflammatory, and yet they would appear to be two morbid states intrinsically distinct from one another, and differing widely in the morbid effects and products to which they give rise. The non-inflammatory congestion will perhaps be found almost always generally diffused over the whole placenta, while the congestion of inflammation is often confined to a number of particular lobes only; the former leads to an extravasation of blood, and sometimes of serum—effusions purely the result of mechanical over-distension of the vessels; the latter, again, gives rise to the various morbid products which are observed to result from inflammatory action in other organs of the body, and which are not mechanical extravasations, but vital, though morbid, secretions. In any individual case, however, of the first stage of placental inflammation, and of congestion, it is often difficult, and not unfrequently impossible to determine its true nature, from the mere anatomical character of sanguineous engorgement of the organ alone, and frequently it is only when we find this state of the placentary mass combined with other more decisive proofs of the action of inflammation —as with softening of the substance of the organ, with effusion of turbid serum, of coagulable lymph, or of pus, that we can decidedly pronounce upon its actually inflammatory character.

Second Stage.—The second stage of placentitis I have already stated, as characterized by the inflammatory action having proceeded to the effusion or secretion of coagulable lymph. The morbid appearances and effects produced by this second stage of the disease vary greatly, according as the effused coagulable lymph is deposited; 1st, in the interstitial or parenchymatous substance of the placenta, or is effused; 2nd, upon its uterine; or 3rd. upon its fœtal surfaces.

1. Few well-marked or accurately detailed cases of acute placental inflammation, producing an effusion of coagulable lymph into the parenchymatous texture of the organ, have as yet been put upon record. From the morbid appearances, however, observed by Brachet*, D'Outrepont†, and others, in a few cases of placentitis, referable to this stage, and from what I have myself observed in a recent specimen of this form of the disease, the following, I believe, may be deduced as its principal characteristic anatomical characters. The affected part of the organ is of a more or less deep red-colour; its texture when cut into, is found solid and dense, and resembling in consistence and appearance a portion of healthy liver, or of pulmonary structure affected with red hepatization. It is inelastic to the touch, but though increased in compactness and solidity, it is still in general so friable, particularly when the inflammation is acute or recent, as to be readily lacerated or ruptured under any considerable pressure. It generally contains more or less of a brownish or reddish turbid liquid, which exudes from its incised surfaces under gentle pressure, or when these surfaces are scraped with the back of the scalpel.

But the form under which we most frequently meet with the deposition of coagulable lymph into the parenchymatous structure of the placenta, is that of reddish and grayish yellow induration, the effect, I believe, of chronic inflammatory action. This morbid state of the placenta has been long known to accoucheurs, and has generally been described by them, along with some other morbid states of the organ, to be afterwards mentioned, under the name of scirrhus of the placenta. It evidently, however, has no pathological relations with scirrhus, at least in the sense in which that term is used at the present day, as designating a carcinomatous state or degeneration of an organ. Chronic induration of the placenta occurs in cases in which we have no evidence of the presence of the carcinomatous diathesis, in the co existence or subsequent occurrence of scirrhous disease in any of the other organs of the bodies, either of the mother or of the infant—it has never

* Loc. cit. Obs. 1, p. 11.

† Gemein. Deutsche Zeitschrift, Band v. Heft. 4 s. 556.

been remarked in any instance, (so far at least as I am aware), to ulcerate or fungate, or take on any of the usual malignant action of scirrhous degenerations—and the anatomical characters which the indurated placenta exhibits, differ from those which are usually considered as characteristic of true scirrhus.

On the other hand, that induration of the placenta is the result of chronic inflammatory action, and the deposition of coagulable lymph, seems proved by the consideration of the nature of the morbific causes by which it is produced, (generally blows, falls, and such external injuries as are calculated to give rise to inflammatory action, received several weeks or even months previously to the expulsion of the indurated organ)—and by the fact, that it is sometimes possible in different placentæ, or even, as I have seen, in different parts of the same placenta, to trace the gradations between the increased solidity of acute hepatization, and that of the most advanced and best marked variety of chronic induration.

The anatomical characters of induration of the placenta appear to vary considerably in different cases, according to the extent of the disease, and the more or less chronic character of the inflammatory action which produces it. In most cases the indurated part is of a reddish or pink-gray hue, but sometimes, probably in its more advanced stages, it presents a citrine yellowish colour. Its section sometimes exhibits a uniform, very compact, and occasionally a somewhat stearoid, lardaceous, or fatty-looking structure; it contains little or no fluid, and in some instances has a dry and desiccated appearance, approaches the density of cartilage, and emits when cut a creaking sound. It very often affects only one lobe, or two or more contiguous, or distant lobes, and in other instances it implicates the whole or nearly the whole of the placentary mass. The portion or portions of placenta affected with chronic inflammatory induration, is occasionally found united by adhesive inflammation to the adjoining portion of uterus, in whole or in part; but in other instances no such adhesive action has occurred, and indeed the disease may be limited altogether to the fœtal side or surface of the placenta.

2. The effusion or secretion, however, of coagulable lymph, as a termination of placentary inflammation, is best known in the effect to which it not unfrequently gives rise, of producing more or less intimate and extensive adhesion between the uterine surface of the placenta and the inner corresponding surface of the uterus, constituting a morbid state of the after-birth that frequently forms a most formidable and dangerous cause of uterine hæmorrhage after the expulsion of the child.

The extent of the morbid adhesion of the placenta to the uterus—the seat of the adherent portion—and the strength or intimacy of the adhesion, are found to be liable to great variations in different cases. In a few rare instances the whole or almost the whole of the organ is found intimately connected with the internal surface of the uterus, but far more frequently the adhesion is limited to a single lobe, or to a few adjoining lobes. The adherent lobes are occasionally those seated in the centre of the placenta, and in other cases those placed at the circumference of the organ only. I may refer to Dr. Ramsbotham's* third case, as an instance of the former, and I shall afterwards have particular occasion to notice a remarkable example of the latter observed by Dr. Hamilton†.

Occasionally when the placenta is only partially adherent to the internal surface of the uterus, the unadherent portion is brought away after the expulsion of the child, by traction at the cord, or by the introduction of the hand, while that which is morbidly adherent is still left more or less firmly attached to the internal surface of the uterus. Dr. Ramsbotham‡ has described a series of instances of this kind, under the title of disruption of the placenta; and Mr. Ingleby§, in his able work on Uterine Hæmorrhage has referred to several fatal cases and post mortem inspections in which a similar accident had occurred. In one of these post mortem inspections, where the woman had died the eleventh day after delivery, a number of pieces of placenta were found still firmly adherent to the fundus uteri. In a second case, where death had occurred twenty or twenty-one days after delivery, many small masses of placenta in a black and offensive state were seen studding the internal surface of the fundus and part of the body of the uterus; these masses did not separate by maceration. In a third case, a portion of placenta, about the size of a small egg, was attached very firmly to the fundus of the uterus, and could not be separated either by the finger or by maceration. The patient had died of irritative fever on the thirteenth day after delivery. In a fourth case, where the patient sunk on the eleventh day after delivery, Mr. Ingleby found a layer of placenta, covered with a thin purulent-looking fluid, nearly circular, and three inches in diameter, very fibrous and rather white in appearance, adhering somewhat tenaciously to the fundus. In a fifth case, he found, five weeks after delivery, a portion of placenta about the size of a walnut, at-

* Practical Observations in Midwifery, Part i, p. 99.

† Practical Observations on various Subjects relating to Midwifery, 1836. Part i, p. 286.

‡ Practical Observations, p. 164, seqq.

§ On Uterine Hæmorrhage, p. 205, seqq.

tached to the fundus of the uterus. The retained portion of placenta had apparently acquired or retained a degree of organization; it was of a somewhat florid colour, the lining membrane of the uterus covered the greater portion of the mass, thought not its centre, which was ragged, and vessels could be traced opening upon it.

Dr. Biancini*, in a lecture on the connection between the blood of the mother and fœtus, published at Pisa in 1833, mentions a case similar to the above. A woman who had suffered greatly during parturition died eight days after delivery. The attempts made to bring away the placenta had occasioned a profuse and alarming hæmorrhage. After death an injection of glue and vermilion thrown into the uterine vessels filled all the uterine arteries, and penetrated into the vessels of a considerable portion of placenta, which was still adherent.

The intimacy or strength of the morbid adhesions between the placenta and uterus, is liable to vary greatly, according to the degree of acuteness of the inflammatory action which has originally produced the effusion of coagulable lymph, and the length of time it has been deposited. When the coagulable lymph, on which the adhesion depends, is soft and recent, and the effect of acute inflammation, the degree of adhesion between the uterus and placenta is scarcely greater than natural. If however, the inflammation be more chronic, and the deposition of coagulable lymph has become organized, the placenta is with greater or less difficulty separated from the uterus, by the uterine contractions, or by the hand of the accoucheur. In some instances the organic union between them is so firm, and the corresponding surfaces of the uterus and placenta are so intimately blended together, that the uterine contractions are altogether inadequate to break up the morbid organic connections existing between them; and occasionally it has been found impossible to disunite them completely from one another by any manual efforts during life, or even by dissection after death.

The thickness of the layer of coagulable lymph, uniting the placenta to the uterus, in cases of morbid adhesion between their contiguous surfaces, is sometimes very considerable. Wrisberg† mentions a case of very strong, and apparently universal adhesion of the placenta, in which he found the uterine surface of the organ covered with a membranous substance, two lines and a-half thick in the intervals between the lobes, and from a line and a-half to two lines in thickness, where it covered the surface of the cotyledons. In this and similar cases, is the coagulable lymph effused, at first, into the substance of the placental decidua, causing its morbid thickening; or is it principally thrown out upon the uterine or upon the fœtal side of that membrane, and are the cavities of the decidual utero-placental vessels liable to become obstructed with it? Is the inflammatory effusion of lymph producing the morbid adhesion of the placenta to the uterus, furnished by the decidual or decidual and proper placental vessels, or is it chiefly thrown out by the vessels of the adjoining portion of the internal surface of the uterus, or are not all of these vessels generally the seat of inflammation, and the sources of the effusion at the same time, owing to the inflammatory action, when it originates in any of them, in most instances, speedily spreading by contiguity of texture, from the one to the other? Occasionally the coagulable lymph effused between the placenta and uterus, is changed not only into a filamentous or cellular morbid structure, but, as happens also in the false membrane of chronic pleuritis, it sometimes assumes a tendinous or cartilaginous appearance. Thus Wrisberg states, that, in the case above referred to, the thick membrane covering the placenta was whitish, compact, and very dense, and of a cellular or rather a tendinous structure, (albicante, compactâ et durissima, cellulosa quasi tendinea). This membrane, forming the bond of union between the adherent placenta and uterus, may also, as we shall afterwards find, be the seat of calcareous deposits, &c.

Cases such as I have alluded to above, in which the morbid union between the placenta and uterus is so intimate as not to permit of the two organs being readily separated by the hand, or by the scalpel even upon the dead body are certainly of rare occurrence. Saltzmann* however, Plater†, and Morgagni‡, may, from among others, be cited as having recorded striking examples of it. In Saltzmann's case the woman had died immediately after delivery, and on opening the body, he found "secundinam undiquaque ipsi utero tam firmiter adhærentem ut vix et nonnisi labore separari potest." Plater describes the placenta as so adherent to the uterus on the dead body of a woman who had sunk under similar circumstances, "ut ægre manibus avelleretur, et tracta laceraretur." The case recorded by Morgagni is one of still greater interest. The subject of it, a woman who had during the course of pregnancy been lifting very heavy weights, suffered a premature labour at

* Sul Commercio Sanguigno tra la Madre et il Feto. 4to Esperimento.

† Commentat. Medic. Obstetric., &c. Argumenti, p. 45.

* Observat. p. 43. Bonetus' Sepulcretum Anatomicum, Tom. iii. p. 121.

† Observat. Lib. i. p. 231. Bonet. Sepul. loc. cit. p. 121.

‡ De Sedibus et Causis Morbor. Epist. xlviii. Art. 28.

the seventh or eighth month, and died, with the placenta almost wholly retained, on the eleventh day after delivery. On the post mortem inspection of the body part of the placenta was found detached, and hanging down through the os uteri, but another portion of it was still so strongly adherent to the uterus, that it scarcely could be separated from it, even with the aid of the scalpel, (utero dicte adeo affigebatur, ut vix posset, cultri etiam ope, separari.) The adherent portion of the placenta was indurated, and the corresponding surface of the uterus inflamed.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXIII.

Generation of Birds.

If we except bees and other industrious insects, there is no class of animals whose physiology more vividly excites our curiosity, and better illustrates the mechanism of generation in man and the other mammiferæ, than birds, when engaged in the act of reproduction. Here, every thing accords to induce us to devote greater attention to this study than to that of all the other living beings which we have hitherto noticed.

These are the animals that we most freely admit into our society; their eggs and flesh furnish us with delicious aliments; the beauty of their plumage, their natural joy and vivacity, and more especially their melodious songs, banish our chagrins and excite in our minds the gayest and most tender sentiments; at night we place our wearied limbs upon their feathers and down; the ardour of their amours is manifested before us every moment of the day; the admirable art with which they prepare their nests, and the paternal cares they show to their young, are excellent moral lessons to us, while the development of the egg presents the most perfect analogy to that from which our species emanates.

Birds are, as first most clearly described by Harvey, oviparous, and not viviparous, as they never bring forth living beings. The sexual organs are similar to those in reptiles and fishes, and perform the same functions. The cloaca is common to excrement, urine, and copulation. The rudiments of the eggs always exist in the ovaries, like those of the human and other females, independently of copulation, but may be expelled without the aid of the male, and are then infecund. They are impregnated by the seminal fluid of the male, or its *aura*, or vapour, which penetrates the pores of the shell, and membrane of the egg. The development of the fecundated egg is effected by the heat of the female or male bird, or by artificial heat. The parents often unite in pairs, as already described, to form nests and to hatch the eggs, and to nourish their young, as these are generally born feeble, blind, and unable to procure food without the aid of their parents; but as soon as they can fly and are independent beings, they are often maltreated by father and mother, as we daily observe among birds of passage and of prey.

There are, however, many species whose young, on leaving the shell, can walk and search for food: and these are protected until parental care is no longer necessary. Our domestic fowls furnish examples. These, however, do not couple in pairs: the male has, in general, many females; the mother

hatches the eggs, and instructs her little ones in the physical education requisite for them.

Before considering the generation of birds, which presents many modifications in the different species, it is necessary to enumerate the classifications most generally adopted by naturalists. These are arranged in six orders, according to the differences in the conformation of the feet, by which we are enabled to perceive very readily the characters of each, the manner in which they walk and can obtain food, and consequently a great part of their habits.

Birds whose feet are short and webbed, as the swan, goose, duck, &c., are called *palmipedes*, or swimmers. There is one male to many females; and the latter alone hatch the eggs. The young are able to walk and run at the instant of birth, and to seek aliments. Those birds which have four claws or fingers distinct from each other, and one behind, as eagles, falcons, &c., are called rapacious, or *birds of prey*. As the nestlings of these are born feeble and blind, the male unites with the female to rear them until they are able to fly.

The female being larger than the male, covers and hatches the eggs, and the latter supplies her with food. These birds generally lay no more than two or three eggs. The cuckoo, whose body is thin and insufficient to afford sufficient warmth to her eggs, deposits them in the nests of other birds, as of the sparrow kind, and these hatch them and bring up the young ones as their own.

The females of the numerous orders of sparrow (passeres) which include parrots and a great number of smaller birds, are in general smaller than the male, and inferior in plumage and attitude. The male hatches the eggs about noon, while the female goes in search of food; and at other times he chaunts his favourite airs, to banish the ennui of his companion.

The young of the gallinaceous tribe can walk at birth and search for nourishment; and there is no necessity for the parents to live in pairs. Pigeons are an exception to this general rule. These pair and hatch in turn, as formerly mentioned.

Maternal cares are necessary to the greater part of young birds, until their bodies become covered with feathers; for on breaking the shell, they are only clothed with a fine down, which, in time, is to be replaced by a covering similar to that of their parents. It is also worthy of remark, that the change in the teguments is much more rapid in carnivorous birds than in those which feed on insects, or on vegetables.

When birds have acquired sufficient strength, which is generally from five to eight months after their birth, they then procreate their species.

It is in spring that they celebrate their amours. Then all seem animated with a new life. Their movements are more active; they incessantly fly from branch to branch, or run on the ground with astonishing rapidity; their songs are more frequent and sonorous: they admire their plumage; the male successively pays his regards to a number of females, and appears for some time undecided as to the choice he is about to make. The females, in their turn, appear to decline the regards of their admirers, and this appearance of modesty is given by nature to the females of all animals, to excite the sexual desires of the males, and thus to increase the secretion of the fluid intended for reproduction.

After a longer or shorter period of uncertainty and agitation, the male approaches the female which he prefers, and she is excited by the same desire as himself. His first movement is to precipitate himself with impetuosity towards her: nevertheless, as if he was frightened at the greatness of his enterprise, he moderates his ardour, trembles, is agitated, and again

become impetuous. She, always presenting attractive modesty, repels his advances, and flies to a distance, where their amours commence; she allows herself to be attacked again and again, but finally yields to the perseverance which conquers her.

Nature wisely endows all female animals with modesty and repugnance so suited to excite the venereal orgasm, or desire, in the males, to elaborate the seminal fluid, and to conduct, in a powerful manner, the procreation of new beings, as vigorously organised as possible.

The cock is the most polygamous of animals, and one is sufficient for twenty or thirty females, and never fails to satisfy the amorous wants of all. He never shows the least appearance of care for the eggs or chickens, which are confided to the maternal care and tenderness alone. It will appear hereafter, in describing polygamy and concubinage among men, that there is the same neglect of offspring. The present Poor Law Act affords us numerous and daily examples. It inhumanly throws the whole weight of support on the mother, exempts the heartless father, and offers an encouragement to vice and the grossest immorality. Yet this statute was termed by legislators, "a boon to the female population!"

When the females of birds have yielded to the male, they both, instead of sporting in pleasures without an object, only think of choosing a secure retreat for the results of their amours. All their solicitudes now tend to the fabrication of a nest, suited to the incubation and protection of their offspring, and at the same time constructed so as to prevent the attacks of their enemies and the inclemency of the atmosphere. The choice of the situation in which they place it, and the art with which they build it, are to us objects of admiration. All choose the best situations, and collect the best materials for their nests; and shew an instinct, that exemplifies the consummate wisdom of the Author of Nature. Thus we see the inhabitants of the air selecting lofty trees and places inaccessible to most animals, for building their nests; and in the construction of these, there is often a perfection which man cannot imitate or equal.

It generally happens, that it is only after birds have found a secure retreat to deposit and cover their eggs, that they commence to procure the sweets of love. Hitherto their enjoyments were sterile, and mere animal sensations; and now, as soon as the ordinary number of eggs are impregnated and deposited, they entirely abandon copulation, and devote themselves exclusively to the development and rearing of their progeny.

These animals offer a lessen to the human female, who during pregnancy and suckling continues to enjoy sexual pleasures, which, unless moderate, are more or less injurious to the tender being she carries in her womb, or that she nourishes at her breast.

But before the period of impregnation, birds are almost incessant in their amours. No class of animals, without excepting the human species, who surpass all in sensibility, afford such examples of such intense ardour, and so frequent enjoyments. Nothing is more remarkable than to observe the male pigeon ardently cooing to his female—he spreads out his wings and tail, he distends his neck, and fixes his sparkling eyes upon his companion. She, after a faint resistance, is ready for the ardour that consumes him. They closely embrace by their beaks, they utter tremulous cooings, and evince excessive pleasure at the completion of the act of reproduction. In fine, we observe the sudden flight of rejoicing after copulation.

How remarkable the tender murmurings of the turtle, the melodious songs of the blackbird, and warblings of the nightingale, in the season of love! Thomson, in his admirable work on the Seasons, vividly describes the amours of the inhabitants of the air, and their incubation and protection of their progeny.

The eggs, immediately after impregnation, undergo successive changes, and present phenomena which are extremely curious and instructive. But before I describe these I must enumerate the different parts of the egg, without a knowledge of which it would be impossible to conceive its transformation into a living being.

The eggs of all birds are composed of the same constituent parts. In proceeding from the exterior to the interior of an egg, we first observe its shell, in which there are a number of small pores, through which the air can pass to vivify the new being. The shell is lined by a membrane, which covers the albumen or white, and the yolk. Some birds lay eggs covered with this membrane only, and without a shell; and the reason of this monstrosity is that the eggs did not remain sufficiently long in the cloaca, in which the calcareous shell is formed. Such eggs are, however, equally nutritious as those which have a hard shell. The albumen, or white of egg, floats within the membrane, and in the centre of this is the vitellum, or yolk, which is composed of the following parts:—1, the vitelline, or membrane which surrounds it; 2, the yellow oleaginous matter of the yolk; 3, two white cords, which unite the white to the yolk, called chalazæ; they terminate in a kind of depression or cicatrix, which is the germ of the embryo, a gelatinous, whitish, and very small body, which always occupies the most prominent part of the egg during incubation. I cannot give a more clear account of the transformation of the egg into the chick, than by citing the numerous observations of our illustrious countryman, Harvey, nearly in his own words, and remarking that, excepting the time which the different eggs of the different species of birds require to be incubated, it is the same in all.

The part of the egg which is fecundated is very small: it is a small white circle (germ, embryo), which is on the membrane of the yolk, where it forms a small spot or cicatrix, about the size of a lentil; it is in this spot that fecundation has happened, and it is from it that the chick is produced, and all the other parts of the egg are subservient to it.

When the egg receives a proper degree of heat, either by the incubation of the hen, or by artificial warmth, as in an oven, dunghill, &c., the small spot is very soon perceived to augment itself, and dilates to the size of the pupil of the eye. In twenty-four hours' incubation, the yolk, which before was in the centre of the white, ascends towards the cavity at the broad end of the egg, which, as the heat causes the evaporation of the liquid part of the white, becomes larger, and the most dependent part of the white falls into the cavity at the small end of the egg; the cicatricule, or spot which is in the middle of the yellow membrane, is elevated with the yolk, and attaches itself to the membrane at the broad end; this spot is then about the size of a small pea; and a white speck may be distinguished in the middle of it, and several concentric circles, of which this spot seems to be the centre. About the end of two days these circles are more visible and larger, and the spot appears to be concentrically divided by these circles into two, and sometimes three parts, of different colours; there is likewise a sixth protuberance externally, which is like a small cataract. Between these circles, a fluid, clearer than crystal, is contained in a fine membrane, which appears to have been deposited by the white of the egg; the spot has been a small tumour, and seems to be placed more in the white than in the yellow membrane.

During the third day this transparent and crystalline fluid, as well as its membrane, is increased.

On the fourth day, we observe a small line of blood, of a purple colour, round the circumference of the little tumour, and at a very small distance from this last we perceive a point, also the colour of blood, which pulsates.

It appears like a very small speck at each dyastole, and disappears at each systole. Two sanguineous vessels arise from this animated point, and extend to the membrane which envelopes the crystalline fluid; these small vessels throw branches into this fluid, and these little sanguineous branches divide like the roots from the trunk of a tree. It is in the angle which these roots form with the trunk and in the middle of the fluid, that the animated point is situated.

Towards the end of the fourth day, or at the commencement of the fifth, the animated spot is become a small vesicle filled with blood, and it propels and receives this blood; and from the same day we very distinctly observe this vesicle divided into two parts, which contract and dilate alternately. This small globe elongates and divides into three parts; the one is orbicular and larger than the other two, and on this, the fifth day, the head, eyes, and vertebræ are developed.

On the sixth day, the heart appears composed of the three enlargements; the tunics of the eyes, the thighs, and the wings are observable, and then the liver, the lungs, and the beak; the fœtus begins to stir and move its head, although it has only as yet the internal viscera, for the anterior and exterior parts are still wanting.

At the end of the sixth, or commencement of the seventh day, the toes begin to appear, the fœtus opens the beak, and stirs itself; the anterior parts of the body extend to cover the viscera.

On the seventh day the chicken is entirely formed, and all the perfection it acquires until it breaks the shell, is only a development of all its parts during the first seven days.

On the fourteenth or fifteenth day the feathers appear, and the chicken breaks the shell with its beak on the twenty-first day.

Such is the ovology or development of the gallinaceous egg, according to the repeated and numerous observations of Harvey, which will be found scattered through his remarks, from his fourteenth to his twenty-fourth exercitation.

According to more modern researches, the history of ovology in the gallinaceous egg is said to be different from the preceding, and is as follows:— The yolk of the egg, before incubation, is composed of round semi-transparent globules, or fine molecules, which may be easily seen with a microscope. After the sixteenth hour of incubation, there is a whitish spot in the yolk, composed of very small cells placed between the layers of its membrane, most numerous towards the circumference, and re-uniting to form larger cells, while those in the centre are grouped in patches. The globules in the circumference give origin, after the twenty-sixth hour, to the circular or primogenial vein, which contains a greyish matter. The globules in the centre form larger patches, which contain the vascular radicles. About the fortieth hour, the primogenial vein has completed its circle; its two extremities meet and form a common trunk. This and all other veins are now developed. The vascular radicles in the centre of the fecundated speck, which gave origin to the primogenial vein, furnish the radicles of the umbilical vessels, and two other trunks situated at the superior and lateral part of the head of the chicken, and these vessels proceed from the circumference to the centre. The blood, which is serous and greyish, becomes of a yellowish red, then of rose colour, by the influence of the atmosphere, and it is much easier to distinguish the colour in the small than in the great trunks. It is scarcely necessary to state, that the contact of the oxygen with the capillary vessels give to the blood contained in the small branches the red colour.

About the end of the third or fourth day, all the trunks meet, and those which are intended to form the umbilical arteries join the trunk of the pri-

mogenial vein, and form an arch, which gives origin to the two umbilical veins and arteries, and likewise to the two superior cavæ. These trunks unite at the point where the vessels communicate, the columns of blood distend themselves, and the central arch, which is the origin and termination of the circulation of the blood. Until this time the vessels, and the fluid which they contain, proceed from the circumference towards the centre, that is to say, from that part which speedily will be the heart; but now the circulation proceeds in an inverse sense, and the course of the blood is from the centre to the circumference, and *vice versa*. But scarcely has the primogenial vein accomplished its functions, than it becomes obliterated; and from this we prove that the circulation extends from the centre to the circumference in the superior trunks; and as the radicles of these two trunks terminate in the primogenial vein, it follows, that the course of the blood proceeding from these vessels interrupts that of this vein, and that this fluid returns into the capillaries; and from this results the disappearance of the primogenial vein. During these changes, the distinction between the arterial and venous vessels is established; there is a communication between the two venous trunks, which corresponds with the auricle, and this auricle is inclined to the left side, towards the curve in the vascular arch, and communicates with the cavity of this vessel. The blood passes from the umbilical vein into the auricle, and thence into the arch, which contracts and sends it into the two iliacs, and these give off the two umbilical arteries. The capillary subdivisions of the arteries are continuous with the capillary ramifications of the umbilical vein, and thus is circulation established.

The heart now, instead of being single, becomes double, the curved vessel in the arch dilates, its branches approach each other, and form the four cavities of the heart, which, however, are only distinct a short time before the chicken escapes from the shell. From the twelfth to the fifteenth day, all the capillary vessels of the umbilical arteries and veins become atrophied, and from the nineteenth to the twenty-first day the atrophy extends to the capillaries of the umbilical vessels.

Such is the exposition of the formation of vessels in the fecundated egg of birds, as sustained in a thesis, by Dr. Thomas W. Jones, before the Faculty of Medicine in Paris, 1834*.

Thus we observe that it is in the germ of the egg that the new being is developed, that it presents many red points or lines, which are blood-vessels, in the centre of which is the heart, that the fœtus has acquired all its parts at the seventh day, and that the egg is transformed into a perfect chick in twenty-one days.

It is right to state, however, that the time necessary for the transformation of eggs into perfect living beings, or the period of incubation, varies in different birds; and observation has shewn that the time is longer for very small birds, which are born imperfect. Thus, those which walk after birth, as pullets, ducks, &c., are not born before twenty-five or thirty days of incubation, whilst the eggs of those small birds which are born feeble and blind, require one, two, or three weeks longer. The period of incubation varies from ten days to two months.

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* Quelques Considerations déduites de l'Anatomie Comparée relatives a differens points d'Ovologie, au mode de communication de la mere l'import et le circulation du sang dans le Fœtus, &c. See also History of the Development of the Human Ovum, with a Comparative View of the Development of the Ova of Mammalia and Birds, translated and abridged from the German of Dr. G. Valentin of Breslau, by Martin Barry, M.D. Edinburgh Med. and Surg. Journ. No. cxxvi, April, 1836.

Notices of the Plant called Coonuparu by the Natives of Guiana. By John Hancock, M.D.

The Coonuparu, or purple bush, is an elegant perennial shrub, indigenous to the interior parts of Guiana. The stem is jointed, and appears like that of cassada—the root of which, as is well known, forms the bread and chief aliment of the natives. A plant of the former is usually seen in their provision-grounds, on which they fancy it has a beneficial influence; and hence they often term it *cassave mamma*—mother of cassada. They employ it occasionally to catch fish; for, by bruising and throwing it into the water, the fish, great and small, are stupified, presently float on the surface, and are taken by hand. There are many other vegetables used for this purpose, as the composite plant, connami, the hyarry (robinea scandens of Aublet); but the coonuparu is the most powerful of all. It grows to about eight feet in height, and eight inches diameter; the stem is jointed, extremely frondose or branchy; it flowers at all seasons of the year, and is constantly covered with leaves; yet it cannot be called an evergreen, for it has ever a purple colour, or mixture of green and purple.

The foliation is peculiar; its heart-shaped leaves are *tern*, or ranged in a most accurate geometrical series, in whorls, so placed that each whorl successively forms on the stem a cord of 60 degrees with that next below; glands appear on the branches, concentric with the leaves, and below, the stems are marked with the vestigiæ of the fallen leaves.

The flowers are small and white, in racimes at the extremities of the branches. I have seen only the male plant, for this only has been brought from the interior, and planted by slips in the gardens on the coast. But I have been told by the natives, that the fruit has the same form as that of the castor oil bush, or ricinus; and they affirm that one single seed operates as a powerful cathartic, carrying off amazing quantities of water; and that thus they speedily cure *great swellings of the belly*, or dropsical tumours.

In the male flowers, the calyx is a cup, five-parted; corolla none; nectars, a nail or fleshy gland on the divisions of the calyx; stamina about forty in number, in five bundles, not connate, unequal, involved in a feathery or downy substance, which grows among the stamina; anthers twin on each filament, round, red; pistillum, rudiments of the germ, three-sided; style very short; stigma six, divided.

This plant is indigenous to the inland parts of Guiana, and is, since 1810, frequently met with in the gardens on the coast, where it is propagated by slips only, as it has never been known to bear fruit. The flowers are constantly male, with only the rudiments of a pistillum; yet, in the interior, under the same latitude and temperature, it bears a tricoccous fruit, similar to that of siphonia elastica, but smaller; from which I concluded the plant must be dioecious, and that the male only has been brought to the coast—although I am not sufficiently versed in vegetable physiology to say whether a dioecious plant, propagated by slips, will invariably remain the same, or maintain its sex, through successive *generations*, if so we may term it.

The coonuparu, or purple bush, seems much allied to the hynanche oxicodendron of Willdenow, but comes nearer, perhaps, to the hecatea of Persoon. Indeed, I should think it a true species of this genus, although an eminent botanist (Dr. Hooker) has pronounced it to be the euphorbiæ continifolia; and if so, Willdenow's description is worse than useless, for it is indeed quite unlike the plant in all respects. With all deference, however, to Dr. Hooker's discrimination, I am fully persuaded that the coonuparu is not only distinct in species, but in genus, from the euphorbia continifolia. The leaves

are never opposite, but universally tern, without an exception, and they are not emarginate (notched), but, on the contrary, pointed, and between every two leaves are two small glands (six in the whorl). Besides, no author, in the description of the euphorbia continifolia, has mentioned its remarkably deep purple colour, which remains constant in every soil in which it has been planted—an attribute which forms a character so distinctive, that the name of *purple bush* is that by which it is most readily recognized in Demerara*.

The entire plant is replete with a lactescent fluid, of a pure white, and near the consistence of cream; and so copious is this juice, as to trickle down in a small stream when an incision is made, or a branch broken off. This fluid has a powerful acrimony, and when tasted, affects the mouth and fauces with a sense of burning, and the flavour of capsicum. Notwithstanding this acrimony, or rather, perhaps, in consequence of it, a tincture prepared from the dried and powdered leaves forms a most efficacious medicine against inflammations, and exceeds all internal remedies that I have ever met with. Four drachms of the powdered leaves are infused in six of proof spirit. Of this tincture from five to ten drops are given once in four or six hours.

Its virtues are not given out to water, and tardily to proof spirit, but this is promoted by the application of heat. The heat of the sun is sufficient; and by this alone the spirit is abundantly impregnated with its peculiar pungency; and this tincture, even when long standing and largely diluted with water, retains its virtues either by solution or suspension.

This plant is one of the most remarkable, perhaps, of all the natural family of tricoccea or euphorbiaceæ, in its growth, as also in its sensible or physical properties. Its sensible operation in a large dose, as twenty or thirty drops, causes a borborygmus, or tumbling of the bowels, which is soon followed by a rash or efflorescence, like an essera, or rather, diffused patches, with a slight, but sensible elevation of the skin, first about the middle, then extending, more or less, over the whole surface of the body, at the same time attended with an itching or irritating sensation, and sweat. The internal distress, in the mean time, proportionably subsides, *i. e.* when taken in pulmonary and other internal inflammations, after due venesection, together with antiphlogistics and the use of cooling drinks, whilst the superficial irritation is kept up by smaller doses of the tincture.

As to the principle or mode of action by which these effects are produced, it may be considered a matter of opinion; but there can be little doubt it acts by producing revulsion, or, in the more fashionable language, by counter-irritation—by thus giving the humours a tendency to distant parts, to the whole surface of the body; in this case it appears to disburden the internal parts suffering under excessive congestion and inflammation. Similar effects are produced by excessive stimulating applications, and by which extraordinary recoveries have occurred in the most desperate conditions, as stated by the writer, in Dr. Ryan's Journal, vol. iii. In this case, or by this method, a high degree of excitement of the *external* surface is produced. Now, in the use of coonuparu, we have reason to believe there is not only an excitement of the internal surfaces of the whole intestinal canal—and this is indicated by the sense of inward heat and borborygmus;—it is, in fact, a sort of tempo-

* In 1828 I brought home a specimen of this plant in a growing state, and placed it under the care of that skilful botanist, Mr. Anderson, of the Chelsea Botanic Garden, where, I believe, it is now in a thriving condition. The deep purple dye of its foliation was found to remain constant throughout the summer and winter, as Mr. A. informed me. There is also a dried specimen of this plant, with others, which I presented to the Herbarium of this Society in 1828, but without a description, although these notes were taken from the growing plant in 1826.

rary irritative fever, which is induced by the coonuparu, which tends to arrest the inflammation, giving infinite relief to the patient.

But, whatever may be regarded as the theory or *modus operandi*, I believe no remedy can be found, possessing such extraordinary powers for the cure of inflammation as this, and especially when employed in conjunction with moderate bleeding and the vapour-bath. I had proved this on the coast of Essiquebo, so long back as 1823, and particularly on the estate Devonshire Castle, when a violent epidemic pneumonia prevailed, when patients in the last stage of the disease, and past all hope, were saved by this medicine, as will be well remembered by the manager, Mr. C. Bunbury *.

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* Dr. Wallace, the physician who attended the estate, afterwards candidly told the manager that these people were most unequivocally saved by this medicine.

HISTORY OF MEDICAL JURISPRUDENCE AND STATE MEDICINE.

(*Continued from p.* 736.)

Zitman, Boerner, Kannegeiser, and Teichmeyer, each published systems of various, yet conspicuous merit. The *Institutiones Medicinæ Legalis* of the latter, long formed the manual of the student and the text-book of the professor. The clear and forcible reasoning of Stoerck (*De Medicinæ Utilitate in Jurisprudentia*, Helmont, 1730), vindicated the high importance of this branch of knowledge. This author very ably advocated the importance of medical knowledge in legal investigations. But the *Systema* of Alberti, the professor of medical jurisprudence in the University of Halle, in six quarto volumes, was the most laborious and complete work of that century. The writings of this learned person are obscured by his devoted attachment to the mysticism of the Stahlian school; yet the industry with which he has collected an immense body of facts, renders his work a precious mine of medico-legal information. His example appears to have stimulated other physicians to publish collections of cases; and curious additions were made to our knowledge by Loesve, Reichter, Budæus, Troppanneger, Fritch and Wolff, Hermann, Clauder, Herzog, and Parmeon, which are particularly valuable to those who may be called to exercise the profession in Germany.

The next author of celebrity was Plenck, who published his "Elementa Medicinæ et Chirurgiæ Forensis, 1781. Then followed the lectures of the illustrious Haller, on Juridical Medicine, which was based on the Institutes of Teichmeyer, but greatly amplified and improved. These celebrated lectures were afterwards published in three volumes, octavo, entitled, "Vorlesungen über die gerichtliche Arzneiwissenchaft, 1782. Daniel published his Bibliotheca of State Medicine at Halle, 1784, entitled, "Bibliothek der Staatsarzneykunde." Several other important German works appeared towards the close of the eighteenth century, some illustrative of particular questions of legal medicine, and some elementary productions which deserve notice. Among these are Sikora's "Conspectus Medicinæ Legalis, Pragæ, 1792; Loder's First Lines, "Anfangsgründe der Medicinischen Anthropologie und der Staatsarzneykunde," 1793; Metzer's System, "Systsm der Gerichtlichen Arzneiwissenchaft," Koningsb., 1793: Latin, by Keup, 1794; Muller's Delineations, "Entwurf der Gerichtlichen Arzneiwissenchaft," Francf.

Those who may be desirous of obtaining the titles of the German works or essays, omitted in this sketch, most of which refer to wounds, poisoning, and infanticide, will find the necessary information in the Bibliotheque Medicale of Plonquet, in the works of Struvius and Goelicke, and in the "Collectio Opusculorum Selectorum ad Medicinam forensem Spectantium, Curante. Dort," F. C. T. Schlegel, Leipsiæ, 1785—1800. Dr. Beck gives a list of the titles inserted by Schlegel; but these, and a vast number of others, will be found in the last works to which I have referred, and these are in possession of most medical practitioners throughout the world. The Cyclopædia of Practical Medicine, London, 1834; and Forbes' Medical Bibliography, 1835.

The eighteenth century commenced with happier prospects for this branch of science, and the press teemed with important works on legal medicine. As early as 1700 we find an admirable treatise on the diseases of artificers by Bernardino Ramazzini, of Padua. His attention had been called to this subject by observing how frequently a fatal asphyxia occurred to persons employed in cleaning sewers and privies; and this accomplished man extended his inquiries to the more remarkable diseases of artisans of various denominations. Ramazzini's work, *De Morbis Artificum Diatriba* is still a standard work, and has been commented on by several

writers, even so late as 1822.* It has also been translated into many languages, and is a standard work in all civilized countries.

During the last century little had been done, in Italy, towards the advancement of medical jurisprudence or police. Beccaria's work appeared in 1749, entitled "Scriptura Mediculegalis," and soon after Bonni's "Institzioni Teorico Pratiche di Chirurgia.

The science had made little progress in France until after the middle of the eighteenth century. In 1788 Professor Louis commenced the publication of his Memoirs on the Certainty of the Signs of Death, on drowning, on the means of distinguishing suicide from homicide in cases of hanging. His consultations on the cases of Calas, Montbaillet, Syrven, Cassagneux, and Baronet, which are preserved in the Causes Célébres, are models of medico-legal reasoning, and exalt him as a jurist. He also examined, most minutely, the signs of real and pretended pregnancy, and was the first who publicly taught jurisprudence in France.

The Courts of France had decided for the legitimacy of several persons born twelve, and even thirteen months after the death of their putative father. The famous case of Villeblanche, born 320 days after such an event, called forth the Memoire of the celebrated Louis, President of the Royal College of Surgeons in Paris. In this dissertation, Louis attacked the legitimacy of those pretended cases of retarded birth with powerful arguments, in which he was seconded by Astruc and Bouvart; but was vehemently opposed by La Bas and Antoine Petit. This gave rise to very able publications on both sides, in which Bertin Pouteau and Vogel bore a part; but the victory remained with Louis and his adherents.

Winslow discussed the moral, political and religious relations of the Cæsarian Operation; Lorry investigated the subject of survivorship with success. Salin examined the question of poisoning, and undertook to prove that one Lamotte, who had been buried for sixty-seven days, had died from the effects of corrosive sublimate†. This inquiry led to important results. About this period Lafosse endeavoured to distinguish the phenomena caused by death, from the effects of injuries inflicted on the living body. He also described the positive signs of pregnancy and parturition.

In the year 1789 Professor Chaussier read his excellent memoir before the academy of Dijon, on the great importance of juridical medicine, and in it he treated of several important forensic questions. In it he enforced the necessity of the careful personal examination, by the medical man, in all cases of violence, as blows and wounds; and pointed out the precautions he should adopt in such visits. He gave admirable models of reports, and showed the attention which was necessary to arrive at truth: and to enforce his precepts still more, next year he delivered a full course of lectures on legal medicine to numerous pupils. Towards the close of the last century, the preceding authors, in conjunction with Professor Mahon, compiled the elaborate articles on medical jurisprudence in the Encyclopædie Methodique. Such were the materials, says Foderé, which enabled me to publish my first systematic work in 1796. The subject now claimed the attention of the existing government, and became generally patronized.

In 1796, Foderé published the first edition of his celebrated work, in three octavo volumes, entitled, "*Les lois eclairees par les Sciences Physques, ou Traite de Medicine Legale, et d'Hygiene publique.*" This learned professor was the author of many other works of high reputation.

In the present century, France has taken the lead in this science. The great work of Foderé was soon followed by the establishment of a professorship of forensic medicine in Paris, another at Strasburg, and a third at Montpellier. The first was conferred on Mahon, who obtained great celebrity as a teacher; but the posthumous publication of his lectures has not confirmed his reputation. The arrangement of the whole is defective, and the matter is very slovenly put together, being in a great measure made up of excerpts from French authors, and translations from German writers. It is no doubt, the duty of a public teacher to collect his facts from all sources, and it is his duty rather to aim at giving a fair view of the present state of his subject than to affect originality; but those who take the trouble of examining the small volume of Mahon, will be surprised how little pains he has taken to clothe the facts in his own words.

The chair of Montpellier was conferred on René, whose advanced age rendered him little able to perform its duties.

The first professor at Strasburg was Noel, who is said to have left interesting manuscript lectures, which, I believe, have not been published.

Several valuable works appeared in the early part of the present century. Vigné, of Rouen, published his valuable production in 1805. In 1807, the posthumous work of Professor Mahon was edited by

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* This production had led the late Mr. Thackrah to publish his instructive and valuable work on the same subject, which passed through two impressions in a year. (The Effects of Arts, Trades and Professions, and of Civic States and Habits of Living, on Health and Longevity: with Suggestions for the removal of many of the Agents which produce Disease and shorten the duration of Life. Second Edition, 1832.)

† Recueil Periodique de la Sociéte de Med. T. vii.

Fautrel. *Medecine Legale et Police Medicale de P. A. O. Mahon*, Prof. de Med. Leg. &c. avec quelques notes de Fautrel. About this date, Belloc, a surgeon at Agen, published a small but sensible treatise, *Cours de Medecine Legale, Theorique et Pratique*, de J. J. Belloc, Chirurgien a Agen. In 1808, Marc translated from the German, the Manuel of Rose on Medico-legal Dissection, and enriched it with many original observations; to which he also subjoined two instructive dissertations—one on the *docimasia pulmonum*, and the other on *death by drowning*. *Manuel d'Autopsie cadavericque Medico-Legale, &c.* In 1812, Ballard translated from the German, of Metzer's *Principles of Legal Medicine*, already noticed; and his notes are replete with information.

In 1813, Professor Foderé enlarged his work, which may be considered a new one, to six octavo volumes; three on legal medicine, and three on medical police. The renowned author divides his work into three parts: viz. the *First*, comprehending subjects of a mixed nature, or those which admit of application to civil as well as criminal cases, "*Medecine Legale mixte.*" The *second* exclusively relating to criminal jurisprudence, "*Medecine Legale Criminelle;*" and the *third*, to medical police, "*Medecine Legale Sanitaire.*"

The work opens with a learned introduction, in which the importance of the science is fairly examined, and its history pursued with much detail, from its origin, to the period at which the author wrote. The qualifications of the forensic physician are also considered, and the different circumstances opposed to the success of his labours, enumerated and appreciated. Then follow in succession the subjects of the first division, viz. the different ages of human life, puberty, minority, majority, with the anomalies to which the natural growth and development of the body are liable. Personal identity and resemblance. The relative and absolute duration of life. The grounds of prohibition in testatorship, such as habitual, periodical, and temporary insanity; suicide; deaf and dumb state; somnambulism; intoxication. The qualifications of testators and witnesses. Marriage and divorce. Pregnancy, true and false. Parturition, and the signs denoting the death of the fœtus in utero. Paternity and filiation. Premature and retarded births. Monsters. Hermaphrodites. Survivorship. Signs of real and apparent death. Treatment of the different varieties of Asphyxia. Certificates of exemption, and diseases which exempt. Feigned, dissimulated, and imputed maladies.

The *second* division commences with the third volume, and includes, in their respective order, chapters on the examination of bodies found dead. The distinction of assassination from suicide. Wounds. Poisoning. Rape. Abortion. Concealment and substitution of the offspring, and Infanticide.

The *third* division, with which the fifth volume commences, successively treats of the preservation of the human species, and of the means of remedying its physical degeneracy. Contagious, hereditary, and epidemic diseases, and the precautions to be adopted against them. The medical police of cities, with regard to aliment, arts, manufactures, and attention to the sick. Military and naval hygiene; and, lastly, the medical police of hospitals and prisons.

This is universally allowed to be the most valuable systematic treatise in the French language; it evinces great research, learning, judgment, and ability; but it is not calculated to instruct the British jurist. "It is unnecessarily prolix and minute, and is adapted only to the judicial courts of the continent." In 1817, Bertrand published his valuable manual. It is not calculated for British practice in courts of justice, though it is replete with scientific information.

The next work of great value which has appeared in France since 1800, is the system of Toxicology of M. Orfila. *Toxicologie Générale considérée, sous les Rapports de la Physiologie, de la Pathologie, et de la Medecine Legale;* and another—*Leçons faisant Partie du Cours de Medecine Legale, de M. Orfila*, 1821. This celebrated professor has published many other valuable works, which are laid under contribution in the following pages. His Traité des Exhumations, &c. 1833, is largely quoted in the article Putrefaction, in this work. The author is now the most celebrated medical jurist in existence. In 1821, Professor Capuron published his admirable work relating to all obstetric inquiries—*La Medecine Legale, relative à l'art des Accouchemens, par J. Capuron*, Doct. en Med., Professor des Accouchemens, &c. This production contains every thing valuable in the branch of medicine of which it treats.

The various essays in the four voluminous French dictionaries of medicine, and in the many periodicals of France, abound with medico-legal information. The treatises on infanticide, by Lecieux, on the proper manner of examining bodies for legal inquiries, by Renard; on perforation of the stomach, by Laisné; on ecchymosis and sugillation, by Rieux, published in one volume in Paris, in 1819, ought to be in the possession of every one engaged in the practice of medicine. The works of Briand, 1828—*Manuel complet de Medecine Legale, &c*, and of Sedillot, 1830, contain all the valuable conclusions of French jurists, of legal or forensic medicine. The treatise of M. Devergie, just published, January, 1836, ought to be in every medical library.

In Germany, this century has produced

the excellent compends of Schmid and Müller (Landshut 1804), Metzger (Kœnigsberg, 1805), Masiers (at Bostock, 1810), and of Wilberg (Berlin, 1812.) Rose published a very valuable tract on medico-legal dissection. The useful Toxicologia of Plenck appeared in one volume, at Vienna, in 1801. An useful compend on Pharmaco-chemical medical police, which forms the best treatise we have on the preparations and adulterations of food—on the proper kinds of culinary vessels—on the venom of snakes, insects, &c. and the police of apothecaries' shops, was published by professor Remer of Kœnigsberg, in 1811, and was translated into French by Lagrange and Vogel, in 1816.

During this century, Italy has contributed some admirable treatises. That of Tortosa is the most scientific and elaborate of his country in the present age. It was written under the sanction of Caldina and Franck, of Pavia, and Plouquet of Turin. It only embraces forensic medicine, and is entitled —*Istituzioni di Medicina Forense, di Guiseppe Tortosa*, Professore Medico della Commissione Dipartimentale di Sanita del Bacchiglione, 1809. It is divided into three parts, viz. 1. Comprehending all the principal objects of *Ecclesiastical* jurisdiction. 2. Subjects relating to the *Civil* courts. 3. Those which relate to the *Criminal* courts. The subdivisions of each part are arranged in the following order. PART I. Conjugal Impotence.— Conjugal Rites.— Monstrous Births. — Hermaphrodites. — Magic. — Of Persons possessed of Spirits.—Miracles.— Ecclesiastical Fasting. PART II. Age. — Pregnancy.— Birth. — Superfœtation.— Cæsarian Operation.—Simulated and Dissimulated Diseases. PART III. Of Deflowering.— Sodomy.— Torture.— Legal Examination of Wounds, and Dead Bodies.— Poisoning. — Infanticide. — Homicide by wounding.—Fœticide.—Accidental Death.

Another valuable work is by Barzelotti, entitled *Medecina Legale*, in the form of questions, which embrace the most important points of medical jurisprudence. The best edition of it is by Rossi, of Bologna, which was published in 1823.

During the present century, America has contributed to advance the Science of Medical Jurisprudence. In 1823, Dr. Theodoric Romeyn Beck published his *Elements of Medical Jurisprudence*, of which two editions have since appeared in this country. This work is a monument of research, industry, and talent. The author confines himself to Medical Jurisprudence or Forensic Medicine, and excludes State Medicine, or Medical Police. The work consists of nineteen chapters:—I. Feigned Diseases.—II. Disqualifying Diseases.—III. Impotence and Sterility.—IV. Doubtful Sex.—V. Rape.—VI. Pregnancy.—VII. Delivery.—VIII. Infanticide.—IX. Legitimacy.—X. Presumption of Survivorship.—XI. Age and Identity.—XII. Mental Alienation.—XIII. Persons found dead.—XIV. Wounds on the Living Body.—XV. Poisons.—XVI. and XVII. Mineral Poisons.—XVIII. Vegetable Poisons.—XIX. Animal Poisons. There is also an Appendix. All the subjects treated by Dr. Beck are considered most minutely, and generally illustrated by numerous cases which occurred in courts of justice. Dr. Duncan, jun., and Dr. Male, two of our best medical jurists, have declared the work as one of the best hitherto published in this or any other country. I fully agree with them in this opinion, and have accordingly laid it under great contribution in arranging the following pages. So far as it extends, there is no work in the English language equal to it for laborious research and scientific information. It is, however, confined to forensic medicine, and necessarily omits a vast number of questions on state medicine, a knowledge of which is indispensably necessary to the medical practitioner; and which the justly celebrated author intended to elucidate in another work on Medical Police. The present production is an admirable system of forensic medicine, which, as Dr. Duncan observed, " embraces almost every valuable fact relating to it. Each of its diversified departments has been investigated so minutely, that few cases can occur in practice, on which it will be necessary to seek elsewhere for further information." This criticism is fair, candid, and just; but only refers to one department of state medicine and not to the whole. As a book of reference and authority, and as a report of medico-legal decisions, the work is unequalled in our language. It ought to have a place in every medical library. It is not, however, a perfect production. It contains a vast number of judicial opinions and law cases, of little or no interest to the great mass of medical practitioners in this country. It omits many subjects of interest to the profession, such as medical ethics, the laws relating to the education and practice of the medical profession, and the laws relating to public health. These, it is true, are subjects of medical police or public medicine, but they are as deeply important to all engaged in the practice of medicine, as pure forensic questions. This being my firm conviction, I have accordingly introduced them.

Such is the history of medical jurisprudence and state medicine, from the earliest age to the present period, except as regards this kingdom, and this I shall now introduce.

It is a matter of no small surprise, that this science has scarcely been patronized in this country. Britain, which has so distinguished itself in almost every science which has made legislation its study and its boast, has, hitherto, neglected a branch

medicine, so highly cultivated in all other civilized nations. In proof of this statement I must observe, that the science of medical jurisprudence formed no part of medical education in this country until the present century; nor was there a single work published on the subject before the last quarter of the past century. Many medico-legal questions were discussed in our periodicals, but no work appeared in the United Kingdom, expressly treating of the subject, previous to the small and imperfect production of the first Professor Dease, of Dublin, the author of the work on Injuries of the Head, which was published in 1783, entitled, "Remarks on Medical Jurisprudence," dedicated to Lord Clonmel, Chief Justice of Ireland. "This was the first attempt to write on medical jurisprudence in our native language*."

The next in succession was also an imperfect production, by Dr. Samuel Farr, in 1788, entitled, "Elements of *Medical Jurisprudence*," and was an abstract of the work of Faselius, already noticed. In or about this period the first Professor Duncan, of Edinburgh, delivered a private course of lectures on the subject, and was chiefly instrumental in directing the attention of the profession to its importance. In 1808 Dr. Robertson published a *Treatise on Medical Police*, in two volumes. In 1815, Dr. Bartley, of Bristol, published a most imperfect work, entitled, a *Treatise on Forensic Medicine*. The first respectable and original production that this country contributed to medical jurisprudence, was "*An Epitome of Juridical or Forensic Medicine, for the Use of Medical Men, Coroners, and Barristers, by Dr. Male, of Birmingham*, who is justly considered the father of the science in Great Britain and Ireland. This work was published in 1816. It embraces the following subjects:—Poisons, wounds and contusions, infanticide, pregnancy, abortion and concealed birth, pretended delivery, rape, hanging and strangulation, drowning, dangerous ineriety, insanity, pretended diseases, imputed diseases, apparent death, impotence, hermaphrodites. These subjects are described in one hundred and ninety-nine octavo pages.

It is true, that there are many valuable discussions on various medico-legal questions in the writings of Mead, Monro, the Hunters, Denman, Percival, and others; but these eminent individuals have no claim to rank among our authors on medical jurisprudence. Dr. John Gregory's Duties and qualifications of a Physician, and Dr. Percival's Medical Ethics, contain much valuable information on the moral duties of the profession, and which naturally comprise the rules that ought to guide them in public and private practice, and consequently in state and forensic inquiries. There are also admirable essays on certain medico-legal questions, such as Dr. Hunter's, "On the Uncertainty of the Signs of Murder in the Case of Bastard Children, 1788." Dr. John Johnstone's Essay on *Medical Jurisprudence in Cases of Madness*. 1800; Dr. Haslam's admirable Essay on Medical Jurisprudence, as relates to Insanity, according to the Law of England, 1817; re-published with other Tracts by Dr. Cooper, Philadelphia, 1819; and Dr. Hutchinson's elaborate "*Dissertation on Infanticide*," 1819.

The next, and by far the most comprehensive work that had appeared in this country, to the date last mentioned, was Dr. Gordon Smith's, entitled, Principles of Forensic Medicine, systematically arranged, and applied to British Practice, 1821. This work rapidly passed through three editions. Its contents were arranged as follows:—I. Questions relating to the extinction of life. 2. Questions arising from personal injuries not involving a fatal issue. 3. Disqualifications for the discharge of offices, or the exercise of social functions. 4. Miscellaneous questions. This production was most favourably received by the profession. The author commenced a course of lectures, and a few followed his example. In 1823, the conjoint treatise of Dr. Paris and J. S. M. Fonblanque, Esq., Barrister at Law, was published in three volumes, octavo, entitled, "*Medical Jurisprudence.*"

In 1825, Dr. Gordon Smith published his "Analysis of Medical Evidence; in 1827 Dr. Lyall his little volume "On the Duration of Pregnancy;" in 1829 Dr. Gordon Smith his "Hints for the Examination of Medical Witnesses;" and the same year, Mr. Forsyth his "Synopsis of Modern Medical Jurisprudence, Anatomically, Physiologically, and Forensically Illustrated, for the Faculty of Medicine, Magistrates, Lawyers, Coroners, and Jurymen."

Towards the end of 1831, the first edition of a work appeared, entitled, "A Manual of Medical Jurisprudence, compiled from the best Medical and Legal works, comprising an account of:—I. The Ethics of the Medical Profession; II. The Charters and Statutes relating to the Faculty; and, III. All Medico-legal Questions, with the latest decisions: being an analysis of a course of lectures annually delivered in London, and intended as a compendium for the use of Barristers, Solicitors, Magistrates, Coroners, and Medical Practitioners." This work contained an account of medical ethics, the laws relating to the medical profession, and all forensic subjects noticed by preceding writers. It was very favourably received by the public as well as the medical press, and republished by Professor Griffith, in America, as will appear by the notices appended to the work.

The last work, before the present edition

* Dr. Gordon Smith's Analysis of Medical Evidence, 1825, Appendix, p. 181.

of this, published in England, is by Mr. Chitty, the celebrated and voluminous legal author, entitled, A Practical Treatise on Medical Jurisprudence, with so much of the Anatomy, Physiology, Pathology, and the Practice of Medicine and Surgery, as are essential to be known by Members of Parliament, Lawyers, Coroners, Magistrates, Officers in the Army and Navy, and Private Gentlemen, and all the Laws relating to Medical Practitioners, with explanatory Plates, Part I.

I feel it due to the profession to which I have the honour to belong, to state, that the present part of his work is almost entirely medical, anatomical, physiological, and pathological, with some legal references; all admirably arranged and executed, and most instructive to non-medical readers. It is a valuable treatise, and one well calculated to interest the legislature, the legal profession, the magistracy, and private individuals, and cannot fail to advance the interests of medical jurisprudence and state medicine.

In the preceding sketch of the history of Medical Jurisprudence and State Medicine, I have necessarily confined myself to our monographic and systematic writers on the subject; and I deemed it a digression to allude to all essayists, and to those who have elucidated certain parts of it. Among these are the late Professor Duncan, of Edinburgh, the first public lecturer on medical jurisprudence in this country, whose valuable essays and reviews in the Edinburgh Medical and Surgical Journal, have contributed largely to advance the science in this country. His successor, Professor Christison, has given us a work on Toxicology, that will transmit his name to the latest posterity, as one of the most laborious, erudite, and experienced medical jurists that this or any country has produced. This work appeared in 1829, entitled, A Treatise on Poisons, in relation to Medical Jurisprudence, Physiology, and Practice of Physic, the third edition of which is lately published.

The medico-legal writers in the Cyclopædia of Practical Medicine, and in our numerous medical periodicals, have also elucidated many questions of forensic medicine, and are entitled to much praise for their contributions. I shall briefly allude to the writers in the Cyclopædia of Medicine in alphabetical order:—Dr. Apjohn, of Dublin, on Spontaneous Combustion and Toxicology; Dr. Arrowsmith, of Coventry, on Infanticide; Dr. Beatty, of Dublin, on Impotence, Persons found Dead, Rape, Doubtful Sex, Survivorship, and Death after Wounds: and Dr. Montgomery, of Dublin, on Personal Identity, on the Signs of Pregnancy and Delivery, and on Legitimacy.

There are numerous other recent writers in the French Medical Dictionaries, Dictionnaire de Medecine et de Chirurgie Pratiques, and the Dictionnaire de Medecine; in the American Cyclopædia of the Medical Sciences, and in the celebrated German Dictionary of Medicine, Encyclopädisches Wörterbuch der Medicinischen Wissenchaft, now in course of publication. The Traité des Exhumations Juridiques, and the Leçons de Chimie appliquée à la Medecine Pratique et á la Medecine Legale, by M. Orfila, 1836, and Nouvelles Recherches sur les Lecours a donner aux Noyés et Asphyxies, by M. Marc, 1836, are valuable additions to medico-legal literature.

Observations on Cachexia-Africana, or Dirt-Eating. By F. W. Cragin, M.D. [Communicated by Prof. R. D. Mussey.]

This disease, termed also "mal d'estomac" by the French, is common, and too often fatal in the West India Islands, and that part of South America known under the name of Guiana. It is now carrying off numbers in the colony of Surinam with as much certainty as phthisis pulmonalis is in the United States, scarcely a single well confirmed case being cured; nor is it curable by the common mode of treatment there pursued, from a mistaken view of the pathology of the disease. No age beyond three or four years, at the farthest, enjoys an immunity from its ravages.

The first symptoms are ordinarily fever, at irregular intervals, succeeded by sluggishness; which, as the disease advances, nearly amounts to insensibility. The face, the upper and lower extremities, in fact, the whole external surface is of an unnatural, shining fulness and rotundity; yielding, in a slight degree, to the impression of the end of a finger pressed strongly upon the part, leaving a depression after the finger is removed; this is especially the case with the feet and ancles, while in other parts no such depression is made; these last approaching in that particular more nearly to the state of elephantiasis than to œdema.

The conjunctiva is of a peculiar, snowy whiteness, untinged by a particle of red blood, while the eyes participate in the general fulness, making them appear somewhat prominent, and giving to them, altogether, a sort of unmeaning, yet characteristic stare, which, so far as my observation goes, is peculiar to this complaint. The marble paleness of the lips, of the palms of the hands, and of the soles of the feet indicates an impoverished state of the blood. The diagnosis may be nearly formed from the pallid appearance of the lips, the gums and the whole membranous lining of the mouth, and from the condition of the tongue, which in health performs its duty with so much alacrity, lying bleached and bloodless, scarcely able to represent the motives of its owner.

The patient evidently suffers from a sense of cold, as is evinced from an inclination to bask in the sun's rays, even in the hottest part of the day.

There is much palpitation and throbbing of the temporal arteries, while the pulse at the wrist are small, frequent, and slow; quicker, however, after the slightest exercise, after eating, and on the approach of evening.

The secretions are generally diminished; perspiration is suppressed; the urine is scanty, and there is an apparent total suppression of the bilious secretion; costiveness generally prevails in the commencement of the disease, but in its more advanced stages the alvine discharges are increased in frequency, differing from four to ten or more in four-and-twenty hours, of a thin consistency, and unmixed with bile. In the confirmed and further advanced stages of the disease, a few hours are sufficient after deglutition for the digestion of the food, when it appears in some cases to have undergone a slight, and in other cases, no change whatever in its passage through the alimentary canal. The stools, however, become more watery, dark, and fœtid, as the disease draws to a close.

The appearance of blood drawn from the arm is invariably unnatural; it is thin and watery, of a livid, purple hue, assuming neither the bright red of arterial, nor the dark red of venous blood; and wanting the consistency of either, it presents that semiturbid appearance which is a concomitant of a gradual but general decay of the powers of life.

The liver or spleen is generally increased in size, not unfrequently both. The lymphatic glands are enlarged, and frequently indurated; often fifteen or twenty, or even more, of the inguinal glands, may readily be distinguished by the feel, and many of them may be seen forming a tumour of no ordinary size in the groin.

Another essential and leading symptom of this disease, is a universally depraved appetite, and an ungovernable determination to the eating of dirt. The only appreciable signs of mental activity, exhibited during the course of this disease, are the cralty and cunning plans which the patient most subtily matures, and as stealthily executes, to procure his desired repast. This consists usually of charcoal, chalk, dried mortar, mud, clay, sand, shells, rotten wood, shreds of cloth or paper, hair, or occasionally some other unnatural substance. Some pick and eat shreds from the garments they wear, till they can no longer be kept upon them; others swallow with avidity the hair which they pick from their own heads, until they are nearly bald before they are detected. Some negroes eat their tobacco-pipes, and those of the other negroes. I was informed by a gentleman of the strictest veracity, that a negro on his plantation was thus morbidly fond of young rats, which he swallowed whole. The man, he had observed, had been declining for some time, and at length declared himself unable to perform his accustomed labour; he was accordingly ordered to the lazaret of the plantation, where the gentleman shortly called to see him; he found him with an empty calabash in his hand, with nausea, pain in the stomach, and a disposition to vomit; after labouring for a moment, he "brought forth" (from the stomach) "a mouse." There was not a single mark of mastication upon the little hairless quadruped, nor had it apparently been many minutes incarcerated; but probably, being swallowed alive, irritated the stomach, and produced vomiting by its movements in its last struggles for life. The negro then acknowledged having thus indulged himself, so far as had been practicable, for months. Peculiar to children under the age of ten or twelve years, and, late in the course of this disease, a state of ulceration often comes on, mostly confined to the cuticle and cutis vera of the feet, legs, and thighs, but sometimes the nates, as well as the hands and arms, are also affected. I seldom had an opportunity of noticing the progress of this ulceration until it had established itself in the true skin. It appears, however, from observation and inquiry, that at the commencement one or more small whitish and nearly round spots are observed about the ancles and feet, which somewhat resemble the first appearance of that also frequent and fatal disease, the "lepra," with which, however, it has no real connexion; the spots in the disease under consideration, are of a deadly pale cast or ash-colour, while those of leprosy assume a more lively and cupreous redness. These spots or discolorations become daily more evident, until at length the cuticle gives way; others successively appear, and advancing in the same manner, also ulcerate. The number of ulcers is, in some instances, very great, from constant accessions, while none are disposed to cicatrize, and in other and very severe cases, the whole number does not exceed three or four.

These ulcers gradually increase in circumference and depth, till the cutis vera is penetrated; some of them are at length confluent, others remain unconnected, and in the most loathsome cases, the feet, legs, thighs, and sometimes the nates present one broad surface of ulcers, some small, and others running into each other, forming patches of a greater or less extent.

When this ulcerative process commences, there is frequently mixed with the fæces a small quantity of blood, and in one case which I saw attended with prolapsus ani, the lower part of the rectum was thickly studded

with ulcers, small, but in other respects similar to those situated externally.

These ulcers of the skin are of the indolent kind; they have no raised or bordered edge, and actually discharge but very little, their surfaces being merely kept moistened by a colourless and apparently bland fluid, with no palpable signs of granulation. In this state of the disease the patient becomes more anasarcous, not alone in the extremities, but the whole body, inasmuch that the features, however familiar they may have been, are quite obscured in the general tumefaction.

The diagnosis in this disease is by no means difficult; yet the patient, when accused of dirt-eating, which is too often urged as a voluntary crime, rather than an irresistible disease, invariably denies the charge. Under these circumstances, it may be necessary to resort to stratagem to detect him in the act, and make him feel and know that further prevarication is useless. If indigestible substances are swallowed, it is only required to wash the fecal dejections in water; after frequent rincings, the residual indigestible material decides the point at issue. In Surinam, the result of such a process is frequently a quantity of broken shells. The town of Paramaribo being partially situated upon a bed of marine shells, and the streets and walks of plantations as well as of the town being made and repaired with the same material, it is very often seized upon by dirt-eaters to appease that appetite which gives the character to this disease.

As curative means, neither promises nor threats, (even when put in execution,) nor yet the confinement of the legs and hands in stocks and manacles, exert the least influence; and their preventive effect is as temporary as their employment; so great is the depravity of the appetite, and so strongly are the unfortunate sufferers under this complaint subjected to its irresistible dominion. A metallic mask or mouth-piece, secured by a lock, is the principal means of security for providing against their indulging in dirt-eating, if left for a moment to themselves, nor does this effect a cure or save the life of the patient.

The "Dictionnaire des Sciences Medicales," under the head of mal d'estomac, mentions several cases of remarkably diseased appetite; but so close is the connexion, amounting almost to identity, with chlorosis, that it would seem very little was known of the former, as a separate disease, unconnected with the latter.

Dr. John Mason Good also assigns as causes for limosis pica, (which he says has been called mal d'estomac, or cachexia Africana,) pregnancy, chlorosis, and some species of mental emotion, and considers it to be a primary affection only when it is occasioned by the vanity of persons who accustom themselves to some empirical material, with a view to improve the form or complexion.

In a work published in London in 1811, entitled "Practical rules for the management and medical treatment of negro slaves in the sugar colonies, by a professional planter," the author, in speaking of mal d'estomac, or dirt-eating, says: "it is the effect of relaxation, and its natural concomitant, an impoverished state of the blood, arising commonly from mean diet, and may be produced by any other cause which induces a laxity of the solids." "The power of the passions," he observes, "in producing that effect, is very well known; and we find that negroes labouring under any great depression of mind, from the rigorous treatment of their masters, or from any other cause, addict themselves singularly to the eating of dirt."

Without being competent to remedy the defect in our medical knowledge, I am confident the true causes and means of cure have never been well understood. Many scientific authors who mention this disease, have evidently no experimental knowledge of it; and others, who have had opportunities for information, have too generally confined themselves to superficial observation and pre-established opinion.

When we reflect that dirt-eating respects neither age nor sex, there needs no further argument to prove it to be a distinct disease and in no way connected with chlorosis or pregnancy; and there is sufficient reason to believe that the disposition to eat chalk, clay, earth, and other absorbents, arises from an acidity of the stomach, which is so troublesome in chlorosis and pregnancy, but which—the opinions of others notwithstanding—I have learnt, is by no means a general attendant upon the disease under discussion. From the fact that no age, from a few months, or years at most, is exempt from its ravages, we can neither admit as a cause an accustomed use of empirical materials, nor a melancholic or any other affection of the mind. The effect has been mistaken for the cause. The universal stupor and inertness of the faculties, both mental and corporeal, is an effect of the disease—not a cause arising from a bereavement of friends and home, of joys and kindness: and it may not be amiss to mention the following one of the many facts that go to prove this position. Persons living on the same plantation, perhaps on the identical section of the same plantation, on which they were born and reared, with all their friends around them, and by indulgent masters and owners, who are themselves the *real* slaves while the owned are only *nominally* so provided with ample food, raiment, and, if necessary, medical aid, are also subject to this malady.

The intellectual powers probably suffer

in some ratio, depending upon the extent of the disease, and the dominion it obtains over the bodily powers.

As I have observed, wherever the disease is met with, the patient is listless and stupid almost to idiocy, and apparently regardless of comfort, or even of life itself. That superficial observers should look upon this in adult negroes, recently kidnapped and carried into slavery, as a cause, is not wonderful; but the fallacy of such an opinion is evident from the fact, that this same mental and corporeal torpitude prevails as one of the most prominent features of the complaint, alike in the free and in the bound—in the adult and in the child—in the foreigner and in the creole—in the mulatto, mustese or castese, and in the negro. With regard to the dark spots occasionally observed upon the tongue, resembling spots of ink, they are neither indicative of this nor any other disease—they are perfectly compatible with health, but are seldom met with. They are confined, I believe, to people of colour, and occur as often in the healthy as in the unhealthy, and perhaps depend upon accidental deposits of black pigment to which is owing the colour of their skin.

How far constitutional peculiarities may predispose to this disease, I am not prepared to say; their influence is probably slight; there are, however, probably few diseases which are not in one way or another affected by various internal and external circumstances, though these are, nevertheless, not considered as causes. I have seen no evidence of its being hereditary. An improper diet is one cause of this complaint, but I knew of instances where the patient was not subjected to such a diet; and, of course, it is not the only cause. Exposure to cold, as from sleeping in damp situations without suitable covering, is another cause.

From the insidious manner in which the disease under notice makes its inroads upon its victims, and the great care they take in concealing it, or what is more likely, from a general belief that it is irremediable, I have seldom been called (during a practice of nearly five years in Paramaribo) to administer to a patient labouring under this frequent malady until the ulcerative stage had commenced, and the fate of the patient thereby irrevocably sealed. Many of the cases that came under my view, I met with accidentally, and to most of them it was inconvenient, if not impossible to return. I had, however, determined upon investigating the subject, and ascertaining if it were possible to devise some better mode of treatment than was generally practised. I left the colony soon afterwards, having proceeded but little way in my investigations. Opportunity may again offer, when I shall resume my attention to this disease; and in the mean time, if there can be disclosed a method of cure which is somewhat successful, it will enlighten at least one, and not improbably prevent the otherwise premature death of many.

Greenfield, Dec. 10, 1834.

[In the *Edinburgh Medical and Surgical Journal* for April, 1833, there is an interesting paper on dirt-eating, by David Mason, Esq., which, as it affords information on some points which Dr. Cragin's opportunities did not enable him to investigate, we shall present some notice of here. In Jamaica, where the author witnessed the disease, it is, he states, commonly brought on by long abstinence, bad food, and an irregular and inadequate supply. The persons most exposed to these privations are fugitive negroes, who have absconded from their homes, and lead a wandering and necessarily watchful life, without any certain or constant means of subsistence; and the indolent negroes who, from mere laziness, neglect the cultivation of their provision grounds, and are thereby exposed to similar wants. These last sometimes resort to the practice designedly to produce ill-health, as a means of evading work. "The train of symptoms that progressively arise are," according to Mr. Mason, "indigestion and emaciation, a bloated countenance, a dirty yellow tinge in the cellular tissue of the eyelids; paleness of the lips and ends of the fingers; whiteness of the tongue; great indolence, with an utter aversion to the most ordinary exertion; palpitation of the heart; difficult or rather frequent and oppressed respiration, even during moderate exercise, which never fails to induce a rapid pulse; habitual coldness of the skin; and occasional giddiness of the head, attended with a disposition to faint, sometimes causing a state of stupor. As the disease continues and advances, dropsical effusion takes place in the thorax or abdomen, or both. The texture of the blood and other fluids become changed; the blood appears pale and watery."

These symptoms coincide very nearly with those observed by Dr. Cragin, and seem for the most part the result of an anæmic condition, caused by imperfect nutrition.

Dr. C. appears to have had no opportunities of making post mortem examinations, and it may therefore be interesting to state the appearances on dissection met with by Mr. Mason, though his examinations do not seem to have been made with that degree of minuteness which modern pathology demands. The stomach being the primary seat of the disease, it might be expected, says Mr. M., that it "would show peculiar morbid changes on dissection but in those cases which I have examined after death, these appearances were not very remarkible. The internal surface was usually covered with a whitish viscid matter, probably thick-

ened mucus; the liver was generally found hard and condensed, and the gall-bladder filled with dark coloured bile, nearly resembling tar in consistence and appearance." In the cavities of the heart, both auricles and ventricles, Mr. M. has seen, in many instances, "a kind of fibro-albuminous or gelatinous polypi, having long attached appendices floating loosely in the cavities, and the extremities of which are extended into the orifices of the great arteries. These polypi do not fill the cavities, but closely embrace the columnæ, to which they are slightly attached; and the appendices are long, loose, fibrous-looking processes, which, although projecting into the pulmonary arteries, as well as aorta, by no means fill the orifices, nor are they found in the vena cava or pulmonary veins." They are compact, colourless, and insoluble in water or alcohol.

In a curative view, the first step, according to Mr. Mason, is, if possible, to reclaim the delinquent negroes from their slothful habits, to furnish them with the necessary quantity of food, to enforce cleanliness, and furnish proper clothing.

The strictly medical treatment recommended, consists, first, in the administration of emetics and purgatives, and afterwards a continued course of such tonic medicines as act more directly on the digestive organs. The best tonics Mr. M. considers to be a bitter laxative, infusion of lignum quassiæ, rhubarb and ginger, in a pint of which eight or ten grains of sulphate of iron is dissolved. "I have generally found," says Mr. M., "the use of soda or potassa beneficial, and have combined either of them with these medicines, by dissolving one or two drachms in the above infusion—of course the sulphate of iron by such combination will be decomposed. By a little agitation, however, the iron will be taken into the stomach in the state of oxyde—a form into which it is perhaps finally reduced in the system. Nevertheless, if this prescription should be considered objectionable, because unchemical, the iron may be given separately, either in the form of muriated tincture, or a simple solution of the sulphate in water. It is too essential a part of the remedy to be omitted."

In the above advanced stage of the disease, and when dropsical effusion and hepatic disease make their appearance, Mr. Mason considers an alterative course of calomel and opium necessary. Where there is merely anasarca, unaccompanied with hepatic disease, he considers the tonic laxative medicines above recommended, with blisters to the lower extremities, and attention to food, cleanliness, and exercise, as often competent to effect a cure.

Mr. M. deprecates as most pernicious, the practice of confining the patient, in order to prevent him from obtaining the hurtful material; and free air and exercise he considers as necessary to the cure.—Ed.]—*The American Journal of the Medical Sciences.*

The London Medical
AND
Surgical Journal.
Saturday, July 9th, 1836.

THE NEW UNIVERSITY—REFORM IT WILL EFFECT.

The announcement of Mr. Spring Rice on Saturday last, at the London University, that probably in the course of a week, the Charter of the new Institution would be ready, has struck terror into the breasts of the monopolists, whilst it has given new life to the hopes of the reformers. The Charter will be formed on the most extended views, and embrace as much reformation as it is possible to do. Here will be a death-blow at once to the milk-and-water reform of our corporate bodies. Such farces as those just enacted at the Pall Mall College, will not be again repeated, to the disgust of every liberal mind, and to the lasting shame of the men in power—men *now* in power, but whose reign of tyranny is nearly at an end.

No profession has suffered more from the power of its aristocracy than the medical, however great the evils of a privileged birth may be felt in the Church and the Law. On either of these departments, it has never pressed with a more withering influence, or debasing power, than it has on our own; men of the greatest capacity, of the most splendid acquirements have no chance of receiving honours in their college, unless, indeed, they have passed through the routine of a university education; and then, whatever their ignorance, or whatever their stupidity, they are placed at once above the heads of their seniors, and betters in every possible respect. The aristocracy of money is equally injurious and unfortunate. Men become surgeons and physicians to

hospitals, dispensaries, and other public institutions, not for any superiority of talent, not because they are more fitted for such appointments than other candidates, not because they are celebrated for their knowledge, humanity, or skill, but because their fathers were officers in those establishments before, and because these have the *money*, at least to *buy* their way into the path of fame, through the sufferings and woes of the poor and afflicted. A man who is not of the privileged order of the aristocracy of medicine or surgery, has no chance with men who have taken a university degree. The whole power of the corporate bodies is at once set to work to support their protégé, and to overthrow the *inferior* man. We trust that this is one of the evils that the New University will do away with.

The influence now exercised by the Company of Druggists, must also be done away with. That a set of men like those who sit in conclave at the hall in Blackfriars, should have ever been placed as tyrants over a vast portion of the profession, is a stain upon the legislature. Look at the evidence respecting this Company, as taken before the Parliamentary Committee and lately published. Is an establishment like the Company of Apothecaries still to hold dominion over the intelligent race of practitioners of the present day, after the statements that have been made by the directors of the Company themselves? Certainly not. The New University Charter must do away with a system so injurious in every way, to the advancement of knowledge, and the welfare of the profession.

The Royal College of Surgeons must also be reformed—must sink below the authority of the New University—the hole-and-corner system pursued in the election of its Board of Examiners, and of its Council, must be done away with, root and branch; and it must be a self-perpetuating, self-electing body no longer.

We are assured by Mr. Spring Rice, that the Charter will be formed on the most extended views; and surely such important reforms as these we have above mentioned, will not be neglected.

There must be also some regulations respecting the medical schools of the metropolis—there are many deficiencies in the system of education now pursued, which we look to the charter to remedy. The schools which have hitherto been incomplete in their arrangements, are now on the alert to complete their staff. Here will be one benefit, at least, resulting from the New University. We shall not dwell further on this subject at present. We trust ere our next Journal is before the public, that we shall be enabled to state what *are* the contents of the New Charter.

REFORM IN THE COLLEGE OF PHYSICIANS.

We predicted in our last number, that the bit-by-bit reform in the College of Physicians, would give great dissatisfaction; and we already find our table loaded with letters of complaints, against the illiberal institution. In fact, a whole number of this work would not contain the correspondence that has reached us. The tenour is the same in almost all the letters before us; and it is to this purport, that the conduct of the College is unfair, impolitic, and unjust, while it is most insulting to the numerous members who, by their works, eminence, and estimation in the public mind, entirely sustain the respectability of the profession. Thus, the exclusion of Dr. Clutterbuck, Dr. Uwins, Dr. Arnott, Dr. Birkbeck, Dr. Sims, Dr. Johnson, Dr. Copland, Dr. Yellolly, &c. &c., excites the disgust of every one, while the election of others who are totally unknown as contributors to science, is most contemptible. The College cannot seriously imagine that this sort of reform is calculated to

give satisfaction or to secure the support of the great body of insulted licentiates, or to satisfy their friends in the House of Commons. Had they acted wisely or justly, they would have admitted all members of ten years' standing, or all those who, by their works, or official appointments to public charities, are entitled to great respect in the estimation of their fellow-citizens. But such a just and liberal admission could never be expected from a body who, for more than three centuries, have ruined and insulted physicians, and established surgeons and apothecaries much higher in the opinion of the world. The infatuation of this unfortunate corporation will lead to its destruction, unless it be speedily cured, and proper liberal measures adopted by it.

NEW POOR LAW CONTRACTS.

The merciless system of offering up the Unions to auction is still being pursued, although petitions from various quarters have been presented to the House of Commons. Complaints have reached us from various parts, respecting the appointments which have taken place. We are sorry that the profession, on this subject, is not more united, more decidedly and universally opposed to the plan pursued by the Board of Guardians, acting under the orders of the Poor Law Commissioners. We are convinced that if a more determined opposition was shewn to these outrages on every feeling of humanity and justice, a better system would prevail. Our cry, however, is still—Petition! Petition!

EFFICACY OF TARTARISED ANTIMONY IN OBSTETRIC CASES.

To the Editor of the Medical and Surgical Journal.

Sir—In your Journal of the 11th of June, there appears an elaborate and scientific paper, from Dr. Kennedy, of the Dublin Lying-in Hospital, upon the subject of tartar emetic, as a valuable agent in obstetric practice; may I beg the favour of you to allow me, through the same medium, to refer Dr. Kennedy to a case of mine, recorded in the Medical and Surgical Journal of February, 1835, in which I advocate, from experience in its value, the practice of administering tartar emetic, where plethoric habit, rigid fibre, and irritable nerve, are opposed to the quiet, steady, uterine effort which characterizes favourable, natural parturition. Since the period adverted to, I can, from the testimony of further experience, corroborate this opinion. The great advantage derived from this practice is, that we can obtain a control over the muscular and nervous systems, hitherto attained only by the employment of opium and the lancet; the former, although temporarily suspending or abating the force of the muscular action of the uterus, does not produce a relaxed condition of its fibre, as upon a subsidence of its influence, with recurrent action, we have a rigid, unyielding os tincæ, protracting the parturient process most distressingly; and the latter robs the patient of a portion of that vital stream, the loss of which, in the placental stage of parturition, might be seriously regretted. The efficacy of opium, would, I believe, be greatly enhanced by its combination with well regulated doses of tartar emetic; when the suspension of uterine effort is necessary, to facilitate the effecting a change of fœtal position, in the event of malposition in utero, as it would embrace both indications, that of suspending the action, as also relaxing the muscular fibres of the uterus and of the abdominal muscles; and I fully coincide with Dr. Kennedy in his estimation of tartarized antimony, as a most powerful and valuable auxiliary, in concurrence with the depletory antiphlogistic treatment usually adopted in the management of the disorders attendant upon severe parturition, and its too frequent sequelæ, phlegmasia dolens, inflamed mammæ, &c. &c. My motive in soliciting the insertion of these remarks is, to claim the originality of the record; at the same time, from his statement I most respectfully concede to Dr. Kennedy the antecedence of the practice.

I am, Sir,
With much respect,
Your obedient servant,
J. Langley.

36, *Tottenham Street, Fitzroy Square.*
July 2, 1836.

INFIRMARY FOR DISEASES OF THE RECTUM.

To the Editor of the London Medical and Surgical Journal.

Sir—Permit me to thank you for having noticed the dinner for the benefit of the "Infirmary for the Diseases of the Rectum,"

and at the same time to correct some errors in your report of the proceedings.

In primis, it was not an *anniversary*, but a dinner to celebrate the *opening* of the Institution, which occurred in November last only—a material mistake, as it shews that the number of patients relieved is in a far greater proportion than it would have been had the Charity been in operation, as any one would infer from your report, twelve months.

I did not attribute the frequency of the diseases of the rectum "to the application of patients at the public hospitals without relief," or to "the inattention of a great majority of the profession, to the alleviation of such maladies." What I said in allusion to these points was, that I thought the subject had not received that measure of attention, either in public or private practice, which it required—a fact not only daily proved by the patients of the Infirmary, but admitted by every medical man of candour, reflection, and judgment.

I trouble you with these remarks, because it is considered your report is calculated to injure the Charity in the estimation of the medical public, from whom I am proud to add, I daily experience the greatest kindness and professional assistance.

Your insertion of this letter will oblige,

Sir,

Your very obedient Servant,

FRED. SALMON.

12, *Old Broad Street*,
July 4th, 1836.

MEDICAL CONTRACTS.

To the Editor of the London Medical and Surgical Journal.

SIR—From the commencement of your career, as Journalist, myself and others have often admired your bold and uncompromising manner in unmasking anything which is derogatory, and your faithful advocacy of all such measures as would enhance the respectability of the profession to which we belong. There is a growing evil in this town, which I have frequently been inclined to communicate to the pages of the London Medical and Surgical Journal, as its prevalency in this town and neighbourhood is of more than common occurrence. The subject to which I advert is that of the system of medical contracts, or in other words *Farming the Parishes*. There are establishments in this town where they monopolize five or six large townships in the neighbourhood, for the paltry stipend of 8*l*., others 9*l*. per annum; and if it should reach the amount of ten or twelve pounds, it is considered to be a first-rate speculation. When I state to you that the surgeon is called upon to attend in both medical and surgical cases, and some of the parishes are at the distance of four or five miles from the town, you will exclaim with astonishment, How do these worthies live! You must be aware that blood-letting, salts, and water gruel, are the weapons of war whereby they combat both chronic and acute disorders. This nefarious system also extends its influence to the village surgeons; and should the hamlet contain two disciples of Æsculapius, the rate-payers are canvassed with all the eclat of a knight of the shire at a county election. We have another system in extensive operation, nearly equal in respectability to the preceding one; viz. that of contracting with benefit Societies to attend upon the members thereof, at the annual rent of half a crown per head. You are perhaps not aware that the men belonging to these Societies are operatives exposed to the greatest dangers imaginable, being chiefly miners and those employed in cotton mills. There are Societies of different descriptions which can boast of their engaged medical attendants, some of the members having to be visited at the distance of four or five miles. It is a painful but a notorious fact, that many youths are apprenticed to the medical profession, without the slightest consideration of financial affairs, and who have scarcely pecuniary resources to support them in the prosecution of their studies in the metropolis; and ultimately, when they have gained their certificates of eligibility to practice, are at once compelled to enter into the arduous duties of their profession, without any means of sustenance but what they may chance to earn, but which is known to be a miserable pittance for the first two or three years, being doomed for a time to pass as some great unknown, until fortune may smile upon them and render their path less rugged. You will be naturally inclined to consider these young practitioners are the individuals embarking in these systems of contract; but, alas! it is not the case; the parishes are farmed by the leading and the most extensive practitioners. Certainly it might be argued as a system to bring a young practitioner into notice—a field wherein he might make some display—and by the frequent mounting and unmounting his steeds, might suggest to the "*respectables*" that this doctor had great practice. But our seniors revere their situations, and are as tangible to office as Sir H. Halford of his Presidency; and why should they not be so? for they have demonstrative evidence that their contemporaries are anxious to gain the office. But it is surprising our leading men will make themselves so busy; for these parish farmers and club jobbers feel most acutely that their labours are not rewarded with the remuneration of the neighbouring mechanics. These contractors are brought to converse upon the subject with diffidence, and there

is no doubt but they fulfil their duties in as clandestine a manner as possible.

It may be remarked, that those loudest in their declamation, and most malevolent in their observations, were the parties who would gladly embrace the advantages, were they offered to them. It must be candidly confessed, that this argument cannot be denied; which proves to those anxious for the welfare of the profession, that they must unite in a body, and repel all the overtures of the parish overseers, and refuse to make any agreement for the farming of the sick poor. This will be the only remedy to eradicate the system. In hopes that these few observations may be deemed worthy a place in the pages of your valuable periodical,

I subscribe myself,

Yours's. respectfully,

A SURGEON APOTHECARY.

Wigan, June 30th, 1836.

ST. THOMAS'S HOSPITAL REPORTS.

Diseases of Joints.

CASE I.—*Inflammation of the Fibrous Capsule of the Left Hip-Joint.*—Oct. 8th, 1835.—Edward Carpenter, æt. 56, porter, admitted into Abraham's Ward; of regular habits; states that on last Tuesday week, ten days previous to his admission, whilst lifting a sack of seed weighing about three hundred pounds, he experienced a sudden and severe pain in the left hip and loins, which obliged him to discontinue his work. On the following day, the pain still continuing, he was cupped upon the left buttock, which afforded some relief. Pain a short time after was felt in the knee, extending down the inner side of the leg as far as the internal malleolus. Blisters were applied to the knee, but without the slightest benefit.

On his admission, he complained of a dull, aching pain at the anterior and inner part of the knee, more especially towards evening. Pressure in the groin produced severe pain, but pressure over the posterior part of the hip-joint produced little pain. The left buttock was somewhat flattened, and that limb appeared longer than its fellow, which arose chiefly from the obliquity of the pelvis; the wasting of the limb was but trifling. All motion of the hip joint produced pain, but flexion or extension of the leg did not increase that in the knee; sleep was disturbed at night by pain. His general health was good. A moxa about the size of a shilling was applied on the left groin, one inch to the outer side of the femoral vessels. ℞. Morph. Acet. gr. ss. om. nocte. mist. sennæ comp. p. r. n.

Oct. 13. Rests better at night; pain in the knee somewhat diminished; slough of the moxa not yet separated.

Oct. 21. Complains of much pain at the inner side of the knee, extending down the same side of the leg to the ankle; no pain in the hip except on pressure. The moxa discharges but little. Cerevis. Oj quotid.

Oct. 27. Moxa discharges freely: he is greatly relieved, and can move the limb, which is now of the same length as its fellow, with little pain; sleeps well at night; appetite good.

Oct. 30 Not so well, and has had no rest all night; the pain in the knee and leg is more severe, and the moxa has ceased to discharge.

Nov. 3. Pain in the knee very severe, particularly at its inner side; he has also some pain in the hip, increased slightly upon the posterior surface, and severely on the anterior, by pressure; appetite and general health good. The moxa having nearly healed, another was ordered to the groin, a little below the first.

Nov. 11. Pressure over the hip-joint produces no pain, and there is but little in the knee. He complains of slight numbness down the inner side of the leg. There is no lengthening of the limb. Wound from moxa discharging.

Nov. 18.—Moxa nearly healed; he has no pain in the knee, and can bear pressure over any part of the joint without pain. His general health is very good, and he only complains of weakness.

Nov. 25.—Presented cured.

CASE II.—*Inflammation of the Fibrous Capsule of the Right Hip-Joint.*—Oct. 8th, 1835.—Septimus Carter, æt. 19, bricklayer, admitted into Abraham's Ward; of rather intemperate habits: states that about five months ago, while at work, he experienced sudden and rather severe pain in the right knee, which obliged him to discontinue his work for a short time. The pain was relieved by rest so as to enable him to resume his employment, but did not entirely leave him. In the course of the second day after his return to work, the pain again attacked the knee-joint; and he applied leeches and blisters to the knee, but without any beneficial effect.

On his admission, he complained of pain at the anterior part of the knee, of an aching character, increased towards evening; pressure in the groin produced pain, as did also adduction, but the other motions of the limb gave rise to no inconvenience. There was no lengthening of the limb, and but little flattening of the buttock; his general health was good. ℞. Mist. sennæ comp. p. r. n. hydr. subm. gr. j pulv. opii gr. ss. om. noct. sum. empl. lyttæ inguin. appl. et postea catapl. lini.

Oct. 14.—Pain in the knee somewhat relieved; rests well at night; complains of occasional headach, in other respects much the same. Repet. empl. lyttæ.

Oct. 21.—Has no pain except on pressure

over the anterior part of the hip-joint, and that very slight.

Oct. 27.—Not so well; complains of pain in the knee, particularly at its outer side; any motion of the hip gives pain, which is increased by pressure over the anterior and posterior surfaces of the hip-joint. A moxa to the groin.

Nov. 3.—Pain in the knee increased; pressure at the anterior part of the hip-joint produces severe pain, and when applied over its posterior surface, a soreness, not amounting to actual pain, is complained of; says he has occasional numbness of the foot. The moxa discharges freely. He has caught cold from exposure.

Nov. 4.—Complains of severe pain in the head; skin hot and dry; bowels open, pulse quick; has some cough. ℞. Mist. efferves. 6tis hor.

Nov. 5.—Has passed a bad night; disturbed by the cough and by increased pain in the knee; complains of great soreness at the epigastrium; bowels confined; skin moist. ℞. Pulv. rhei c. hydr. ℈j hac nocte. mist. sennæ comp. ℥j ss. mane si opus sit. empl. lyttæ epigast. appl.

Nov. 6.—He has had no rest all night; took the dose of house medicine this morning before the bowels were opened; cough very distressing; soreness at the epigastrium much the same; skin cool; pulse 92, small; tongue clean. ℞. Pulv. ipec. c. gr. x. om. nocte. spir. æther. nit. ℥j syrupi papav. ℥j magn. sulph. ℥ss. mist. camph. ℥x ter die.

Nov. 7.—Has passed a better night, but the cough continues much the same. He complains of great pain in the knee-joint, increased by any motion of the hip; pressure on the anterior part of which also produces pain. The moxa discharges but little. Add. vini ipecac. *m*xx ad sing. dos. mist.

Nov. 9.—Rest at night is much disturbed by pain in the knee; cough still very distressing.

Nov. 11.—Complains of pain in the left side after coughing, but can take a full inspiration without pain; breathing somewhat hurried; pulse 84, compressible; skin cool; bowels open. ℞. Hyrd. subm. gr. ij pulv. opii gr. j. om. noct. empl. lyttæ hypochond. sinist. appl.

Nov. 13.—Pain in the side relieved; cough very troublesome, and the act of coughing produces much pain in the knee; local disease aggravated; bowels open; skin moist and cool.

Nov. 15.—Has passed two sleepless nights owing to the cough; complains of much pain in the head; tongue clean; bowels regular; appetite impaired.

Nov. 18.—Slept better last night; cough not so troublesome, and he has no pain in the chest or head; bowels open; the pain in the knee disturbed him at times; appetite improved.

Nov. 20.—His general health is much improved; complains of less pain in the knee, and none in the hip, unless firm pressure be made over its anterior surface; when applied over the posterior part there is no pain. Went out at his own desire.

Nov. 25.—Walked to the hospital this morning with little pain or inconvenience; pressure over any part of the hip-joint does not produce pain; but he has occasionally some pain in the knee. His general health is now tolerably good.

March 2, 1836.—The local disease has entirely disappeared, as his general health has been restored: he was at the hospital to-day.

Case III.—*Chronic Inflammation of the Fibrous Capsule of the left Hip-Joint.*—Sept. 17, 1835.—James Machin, æt. 11, admitted into Abraham's Ward; states that about four months ago, without any particular cause, he experienced a sudden pain in the left knee, which always increased towards evening, and on the slightest exercise. For this he gained admission into St. Bartholomew's Hospital, where he had two issues placed in the hip, over the situation of the trochanter major; these relieving the pain, he was discharged as cured. In a short time, however, the pain returned with increased violence, and about a week after the relapse he came to this hospital.

On his admission, he complained of pain about the anterior part of the knee; pressure in the groin, and over the trochanter major, produced great suffering, and any motion of the hip joint increased the pain; rest at night was much disturbed by pain; the affected limb appeared lengthened; general health was good. A moxa to the groin. To have a pint of porter daily.

Oct. 13.—Does not complain of any pain. The affected limb appears about an inch longer than its fellow; pressure in the groin produces but slight pain: left buttock flattened, and appears larger than the right.

Oct. 21.—Lengthening of the limb but trifling; complains of no pain; general health remains good.

Oct. 29.—Presented cured, being now able to walk without pain. There is no lengthening of the limb; but the left buttock is still somewhat enlarged.

Case IV.—*Chronic Inflammation of the Fibrous Capsule of the left Hip-Joint.*—Sept. 3, 1835.—Sophia Moath. æt. 26, housemaid, admitted into Queen's Ward; states that about four months ago she received a blow upon the left hip from a fall. The part in a short time swelled, and she experienced considerable pain in the hip-joint, also at the outer and anterior part of the knee. The pain was of a dull, aching character, always worse at night, and destroying her rest greatly. Leeches and blisters have been applied to the hip, and the latter kept open for three weeks at a time; with little or no relief.

On admission, she complained of great pain in the knee at its fore and outer part. The pain in the hip was also very severe, and increased by pressure over the trochanter major, or by any motion of the limb. The general health was much deranged.

A moxa was ordered to the outside of the hip-joint, which gave no relief; and shortly after a second was applied to the groin. These discharged freely, and relieved the pain considerably.

Oct. 4.—Sleeps better at night, but perspires much towards morning; has less pain. The left limb is nearly an inch longer than the right; and the buttock of the affected side is flattened. Her general health is much improved. The moxa on the groin discharges freely.

Oct. 13.—Pain greatly relieved. In other respects much the same. ℞. dec. sars comp. ℥ ss. bis die.

Oct. 25.—Has had a bad night. She complains of more pain in the knee, and the limb is wasted.

Oct. 28.—Pain at times very severe, but does not disturb her rest at night; perspiration very copious; the discharge from the moxa trifling.

Nov. 2.—She rests well at night, but complains of great soreness about the hip, although the pain in that joint is very slight, but that in the knee is much the same. Moxa nearly healed. General health pretty good.

Nov. 11.—The pain in the knee is less, but increased on the slightest motion of the hip-joint, in which, however, there is no pain, and she can bear pressure over the posterior surface of that joint without complaining; but when applied anteriorly, it does produce pain. Moxa healed.

Nov. 18.—Not so well: has more pain in the knee and hip, and great tenderness over the whole hip-joint, more particularly over its anterior surface. Her night's rest is much disturbed by the pain, which is then always aggravated. Appetite impaired, but all the secretions natural.

Nov. 20.—Hip and knee much the same. Complains of much headach, and her bowels have not been relieved since the last report. ℞. Mist. senn. c. stat.

Nov. 25.—The hip much the same, and pressure over the front of the joint produces much pain, but when applied to the back of the joint, she complains merely of soreness. Occasionally, but chiefly at night, she has pain in the knee, on both sides. Pain in the head relieved, and appetite improved. Secretions natural. Addat. mist. potass. hydriod. dec. sars. c.

Dec. 1.—In every respect as at last report. ℞. Ferri subcarb. ℥ ss. ter die. Liq. opii sed. *m* xxx omni noct.

Dec. 8.—Has much less pain in the hip-joint, but pressure on its anterior surface causes much suffering. In the knee there is but little pain, and that only at night, but she sleeps much better. Her general health is improved, and her bowels regular.

Dec. 11.—Left the house by her own desire.

Clinical Observations.—There is perhaps no class of surgical diseases, nor any department of surgery, which is of more importance than affections of the articulations. They are connected a good deal with constitutional disturbance, as well as being the result of local injury, and they produce effects extremely distressing to the subjects of them, so that the student cannot be too careful in investigating them.

The hip is, perhaps, as frequently affected as any other joint; and affections of it are, perhaps, of more importance, comparatively, than diseases of any other articulation, as being more obscure, and leading to most serious results.

Of the four cases of hip disease above detailed, three present very nearly the same train of symptoms.

Taking the first case, we find that there is inflammation or mischief induced in the hip-joint by a violent strain. We can account for this when we know that some of the muscles are attached to the fibrous capsule, their tendons being connected with it, so that under violent exercise (especially of the kind here related, that of lifting a very heavy weight) there might be laceration, not only of the tendinous structure connected with the fibrous capsule but of the fibrous capsule itself, a very probable cause, therefore, of inflammation in the texture. We find that this pain extended to the loins; this probably arose from some slight strain at the same time in the muscles of that part, not connected with the injury at the hip.

After inflammatory action had been set up, and simple means had been employed, without avail, to check it, he applied for admission here; and we then find that he has pain at the anterior and inner part of the knee, increased towards the evening, and aggravated by pressure on the groin.

As to the situation of the pain, that is a matter of importance. The fibrous capsule of the hip is extensive, but inflammation does not extend so quickly from the continuity of surface, as it does in the serous or mucous membranes, more especially the former, where inflammation spreads rapidly from one point to the whole surface. We know that in the arachnoides, the pericardium, and the peritoneum, if there be inflammation in one part, it rapidly spreads over the whole of the membrane; but you do not find that to be the case in fibrous membranes. You sometimes find an organic change taking place in one part, while other parts remain almost unaffected. The pain at the anterior part of the joint denotes here that the inflammation or morbid affection is confined principally to the corres-

ponding part of the capsule, and this is again indicated from the sympathetic pain affecting the knee: it is upon the anterior and inner part of the knee that the patient feels pain.

Passing near to the joint, though not so closely that you would imagine (from anatomical examination) as likely to be affected, we have the division or body of the anterior crural nerve. Two branches are directed from this nerve towards the knee, one terminating principally upon the vastus internus, the other extending down to the ankle; and you may have observed that patients complain of pain extending to the inner malleolus, and a little beyond, following accurately the course of nervous distribution. This is an important point to be attended to; for the nearer the remedies to be employed are placed in contact with the affected part, the more good are they likely to do. Perhaps there has been too much indiscriminate use of counter-irritation, or abstraction of blood on the posterior part of the joint in cases of this affection. You will find that cupping-glasses, or blisters, moxas, or more severe forms of counter-irritation, employed over the gluteal muscles, are not likely to do the same amount of good, in cases such as we have before us, as when they are applied in the groin, near the seat of the disease. It becomes a matter of importance, then, to observe where the affection is principally seated.

Pursuing, however, the subject farther, we find that there is a flattening of the buttock, and that this is the case in all the instances of disease which have been recited. When the person supports himself, it is principally on the sound limb, and on that side the distinction between the muscles of the buttock and the thigh is well shown: but, on the affected side, the buttock is, as it were, gradually lost in the upper part of the thigh, instead of there being a line distinctly marking the separation of the one from the other. As soon as the capsular ligament becomes affected, we have sympathetic pain induced from nervous communication, and also sympathetic affection of the muscles; so that those employed in effecting the movements of the leg or thigh in a degree lose their power, and become incapable of performing their duty to the proper extent. It is solely to the loss of power in the muscles, that this flattening of the glutei (which principally form the mass of muscle in the buttock) is to be attributed.

Another point, also, may be observed in some of the cases which I have related, viz., that the affected limb is stated to be longer than the other. But the fact is, that a person who is the subject of diseased hip is always relieving the affected side, and he, therefore, gets a habit of throwing the pelvis in an oblique direction. Usually, the affected leg is advanced forwards and made to rest lightly on the ground, the weight of the body being supported on the sound limb. There is a difference in the height of the cristæ of the ilia: the sound side is thrown an inch or more above the affected side. This, after a time, remains when the patient is recumbent; so that, when you put the legs together to make an accurate examination, you find the same apparent difference in the limbs as when the patient is erect. But there is another circumstance, and a very important one, which gives rise to an apparent lengthening of the limb, when the patient is recumbent. The capsular ligament which comes from the acetabulum embraces the neck of the thigh bone; but as this joint admits of motion in every direction—abduction, adduction, flexion, extension, rotation, and the intermediate movements—we know that the capsule is longer than is absolutely necessary to retain the articular surface of one bone in contact with another; so, if you strip off the whole of the muscles from the capsular ligament, you may then draw the thigh bone from the acetabulum to the extent of an inch or more. The capsular ligament does not proceed in a straight line from one point to another; and when the limb is in a straight position, the capsule forms a sort of loose bag, not projecting out, but it is longer than the mere exact distance, or a straight line between the points of origin and insertion.

The head of the bone is kept against the acetablum in a healthy state, by the influence of the surrounding muscles. All the muscles which pass over the hip-joint have more or less influence of this kind; but more especially those close on the articulation. As we find the glutei lose their power, so the other muscles about the joint also lose their power; and if by force (when the patient is recumbent) you draw together the two legs, the separation of the head of the femur from the acetabulum takes place on the injured side, from the muscle not affording resistance, and a difference is made in the length of the two legs in consequence of the separation of the articular surfaces on one side, to the extent of an inch or more.

This is a point which I may remark upon as referable to injuries. A patient has a fall, by which the hip-joint is injured, and he is conveyed to a surgeon, or a surgeon is sent for to examine the condition of the limb. The patient is placed in bed, and among other modes of examination, the surgeon tries to compare the length of the two limbs. He is often surprised to find a difference in their length, of an inch or more, but he finds a free motion of the joint, and without he is acquainted with the fact which I have just mentioned, he is, perhaps, in great doubt as to the nature of the case, and pursues the examination to an unnecessary length, in order to satisfy him-

self of the non-existence of dislocation, while the matter might be explained easily —it being the result of injury which affects the muscles; they lose their power for a time, and allow of the separation of the neck of the femur from the acetabulum, upon the application of a very slight force.

We have thus got explanations of the pain in the knee, of the flattening in the buttock, and of the apparent lengthening of the limb; the wasting of the limb in some cases results from the same cause as that which I related as producing flattening of the buttock. We know very well, that when the hip-joint is diseased, the large muscles, more particularly of the thigh and nates, lose their tone and become flaccid; therefore, in measuring the circumference of the limb, although there is no diminution of muscular substance, yet there is an apparent difference in the two limbs. All muscular fibre in a healthy condition has a tendency to contract, (which may be seen when the muscles are exposed in amputation) and the muscles retain a fulness and firmness which they lose under disease. In these cases, the muscles of the affected limb lose their tone or contractive power, principally by sympathetic influence; they become flaccid, and therefore the diameter of the affected limb will be different from that which existed when they were in a healthy state. There is perhaps the same quantity of muscular fibre, but in measuring the circumference of each limb at the same joint, there may be some difference in diameter, from the flaccidity of the muscles of the affected limb. After a time, under the continuance of disease, the muscles, for want of activity, diminish in size: this becomes very apparent under ulceration, or a more extended form of disease, than I have hitherto described.

We have seen in each of these cases that the pain is increased in the knee on the motion of the hip-joint, and pain is not increased at all on motion of the knee-joint. These again are important points to be remarked upon. You find in the relation of the second case, that of Septimus Carter, he mentions having injured the knee, and describes the plan of treatment first adopted, as applied to the knee alone—blisters, leeching, &c.; but which did not afford relief. Now, any intelligent surgeon would have directed his attention to the hip, and then he would soon have detected the true nature of the disease. If a patient complains of pain in the knee, and if the pain results from disease of the articulation, it necessarily would be increased on pressure or motion of the part in some particular direction; but, if the part were sympathetic, such examination would produce no effect; and if, therefore, it were found, upon pressing in the situation of the different ligaments, and upon the more exposed parts of the synovial membrane, that the pain was not increased—or again, if upon the flexion or extension of the leg without the movement of the hip (as can be done when the patient is seated on a bed, or chair, or table), the pain be not augmented, the surgeon would naturally look to the hip, knowing that sympathetic pain in the knee will exist almost as the only symptom indicative of disease in the hip-joint in the first instance. Thus, in the second case especially, I made an examination of the knee-joint, but did not detect disease there. I then went to the hip, and a superficial examination showed that there was a decided affection of that joint.

(*To be continued.*)

Extraordinary Fecundity.

A writer in the Mirror states that he was informed by the late Sir George Tuthill, Physician to the Westminster Hospital, who died last year, of a man named Foeder Waffilief, a native of Astracan, in Asiatic Russia, who had by his wife sixty-nine children, at twenty-seven births; and by his second, eighteen children at eight births—in all eighty-seven children. He was alive in 1782, and aged 75 years.

If this case be true, it would prove that each ovary, instead of containing twenty germs, or vesicles, as generally asserted, possesses thirty-four, or more, and advanees female fertility far beyond the limit usually assigned it by physiologists. Perhaps the case is to be estimated with the Dutch one—of three hundred and sixty-five infants at one birth.

BOOKS.

The Cyclopædia of Anatomy and Physiology. Edited by R. B. Todd, M.D. Part VII. July.

The Medico-Chirurgical Review and Journal of Practical Medicine. Edited by James Johnson, M.D., and Henry James Johnson, Esq. July.

Address of Earl Stanhope, President of the Medico-Botanical Society, for the Anniversary Meeting of Jan. 1836.

This is a chaste and elegant address, evincing the greatest zeal for the advancement of medical science, which reflects lustre on its illustrious author, and on the order to which he belongs.

NOTICES TO CORRESPONDENTS.

H. L., Dublin.—We shall publish it next week.

All communications and books for review, are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

ROYAL INFIRMARY

THE

London Medical and Surgical Journal.

No. 25. SATURDAY, JULY 16. Vol. I.—(1836).

PATHOLOGICAL OBSERVATIONS ON THE DISEASES OF THE PLACENTA.

Congestion and Inflammation.

BY JAMES Y. SIMPSON, M.D.,

President of the Royal Medical Society of Edinburgh, &c.

(*Read before the Royal Medical Society, November* 20, 1835.)

INFLAMMATION OF THE PLACENTA.

(*Continued from p.* 743.)

Of late years several cases have been published in Germany by Professor Naegele * of Heidelberg, and by Drs. Salomon† and Burger‡, in England by Dr. Rigby§, in France by M. Gabillot‖, and in America by Mr. Porcher¶, in which adherent and retained placentæ have been supposed to be either totally absorbed from the uterus, or to have become organically and permanently incorporated with its substance. Madame Boivin**, has endeavoured to explain away the cases given by Drs. Naegele and Salomon, by supposing, that in those instances where the placentæ had been conceived to be retained, they had actually passed off, but escaped observation, from their consisting of a merely membranous structure, or being otherwise malformed. Granting that this explanation may bear upon some of the cases that have been published, it certainly, I think, cannot be made to apply to others; and without at all questioning the good faith or powers of observation of those who have given the cases hitherto recorded, the question may at present be permitted to remain sub judice until more decided evidence is brought forward either in its favour or against it, and in particular until an opportunity occurs in which an uterus can be examined in which this supposed process of placental absorption is actually going on, an important link in the chain of evidence, but one that, as far as I know, is still wanting.

Various pathologists seem inclined to reject at once the idea of the absorption of the placenta, upon the assumed ground, that it is altogether impossible that the uterine absorbent vessels could ever remove so large and solid a mass as that of which the human placenta is composed. If the facts, however, upon which such an objection could be alone legitimately founded are more carefully examined, they will, I fear, be found to weigh, so far as they have been hitherto observed, as much, at least, in favour of the question at issue as against it. Dr. Salomon has adduced various instances from Bartholin (De Insolitis Partûs Humani Viis, p. 37;) Carus (Zur Lehre von Schwangerschaft und Geburt-Erste. Abtheil. 1822, s. 2, 50;) and Huzard (Memoires de l'Institut. National des Sciences et Arts, Tome ii, Scien. Mathem. et Physiq.) of what appear to be accurately observed cases of the removal from the uterus of the cow of the soft parts of the fœtal calf, nothing having been found in the uterine cavity after death, except a mass of fœtal bones. This occurrence seems to take place after the full term of pregnancy has been completed, and when the uterus has been unable to rid itself of its contents, in consequence of some obstacle in the pelvis, or otherwise, to the passage of the calf. Cases of this kind are, I believe, not extremely rare. I have myself had two instances reported to me, by persons upon whose powers of observation I can implicitly rely, of the uteri of cows containing a mass of fœtal bones. Mr. King has recorded a similar case in the "Veterinarian" for January 1834. Jæger (Meckel's Archives

* Froriep's Notizen. Bibliotheque Medicale (1829) Tome i, p. 366.

† Kleinert's Allgemein. Report. vi, Jahrgang. 2. Heft. s. 72.

‡ Rust's Magazin für Gesam. Heilkunde, Bd. xxxv. s. 156.

§ London Medical Gazette, Vol. xiv, p. 333.

‖ La Clinique, 29th August, 1829.

¶ American Journal of the Medical Sciences, No. xx, p. 391.

** Observations et Reflexions sur les Cas d'Absorption du Placenta, Paris, 1829.

für Anat. und Physiologie, Bd. xi, s. 91), mentions having discovered a fœtus reduced to a skeleton alone, in the uterus of a deer. In extra-uterine pregnancy in the human subject, the fœtus has been occasionally discharged by the intestinal canal through the abdominal parietes, or through the cavity of the urinary bladder or vagina, in the form of loose bones. In these cases are the soft parts of the body of the fœtus and its placenta always, by a suppurative or other morbid action, decomposed and diffused through the fluid contents of the extra-uterine cyst, and afterwards discharged externally, previously to or along with the fœtal bones? In the case of the cow, does a similar process of decomposition and discharge of the soft parts take place while the bones are retained in utero?—or are the soft parts and appendages of the fœtus ever removed in either of these two sets of cases from the cavities containing them by a process of absorption? I am not aware of any facts observed with a requisite degree of accuracy, from which to deduce any decided answer to these questions, but they appear to me to be subjects that deserve to be minutely and carefully attended to in the observation of future similar cases; and if, in any sufficient number of instances, it can be proved that the uterus of the cow is actually capable of removing, by an act of absorption, the soft parts and appendages of a contained fœtus, as is supposed by Salomon, and admitted also, I believe, by Carus and Huzard—or if by a similar process the placenta and soft parts of a human fœtus can be removed from an extra-uterine cyst, it would certainly seem unreasonable to reject altogether the idea of the absorption of a morbidly adherent human placenta, upon the sole ground that an absorbent action, of the degree or extent required for that purpose, could not possibly go on at the internal uterine surface. When an extra-uterine fœtus becomes encrusted with calcareous matter, and is retained for a long period in the body of the mother, its placenta appears to be sometimes either removed or changed in such a manner that it cannot be recognized. In the case, for example, recorded by Dr. Cheston (Medico-Chirurgical Transactions, Vol. v,) and where the fœtus was supposed to occupy the cavity of the uterus itself, it is stated, p. 231, that no remains of the membranes, placenta, or navel-string could be discovered, except the insertion of the last into the body of the child.

3. The fœtal as well as the uterine surface of the placenta, or at least the membranes covering the fœtal surface of the organ, are also liable to be the seat of the inflammatory secretion of coagulable lymph, or in other words, of adhesive inflammation. M. Cruveilhier has mentioned a case in his Anatomie Pathologique, Livr. xvi, where the placental surface of the chorion was penetrated with false membrane, the cellular tissue between the chorion and amnion likewise infiltrated, and the placenta itself enlarged and œdematous, or containing a considerable effusion of serum. Mr. Stratford of Boston, has also detailed the particulars of an interesting case of absorption at the third month of utero-gestation, where the placenta was large, soft, and spongy, and covered with flocculi of coagulable lymph, particularly on its fœtal surface. The membranes of the ovum appeared to be thicker and more opaque than natural, and yellow flocculi of coagulable lymph were floating in the liquor amnii.

I have seen more than one instance in which the amnios covering the placenta, and other parts of the surface of the membranes, were partially coated by an effusion of coagulable lymph, and M. Mercier*, in his papers on dropsy of the amnios, has alluded to the same morbid appearance. I shall presently have occasion to allude, when speaking of the effects of placentitis upon the fœtus, to a series of interesting cases, in which the internal surface of the placenta has been found intimately attached by adhesive inflammation to the head and abdomen of the child, and has seemed in consequence to act as a cause of some varieties of malformation.

Third Stage.—The third stage of placentitis (according to the division previously proposed) consists in the effusion or secretion of purulent matter. The purulent matter secreted in placentary inflammation has now been found occupying several different situations, and deposited under different forms. In one case mentioned by M. Brachet† he found two circumscribed abscesses, each as large as a pigeon's egg, situated beneath the fœtal surface of the placenta; these deposits were circumscribed in their locality, although no distinct cysts isolated them from the surrounding placentary tissue. In another placenta, M. Brachet‡ found an abscess occupying three-fourths of the extent of the organ, protruding towards its fœtal surface, and containing as much as a wine-glassful of purulent matter mixed with blood; and in a third case§ he observed a number of little abscesses, varying from the size of a small pea to that of a nut, scattered throughout the substance of the placenta, and surrounded by hepatized structure. Cruveilhier|| seems to have met in several instances

* Journal Generale de Med. xlv. p. 256, &c.

† Loc. cit. Obs. v, p. 22.

‡ Ibidem, p. 23.

§ Loc. cit. Obs. vi, p. 25.

|| Anat. Pathol. Liv. i, and Revue Medicale, 1830, Tome ii, p. 410.

with concrete purulent matter, infiltrated through the tissue of the placenta, accompanied by an effusion of coagulable lymph between the portions of chorion and amnion, investing the fœtal surface of the organ, and surrounding its circumference. In these cases the texture of the placenta was denser than usual, much less vascular, of a somewhat lardaceous appearance, and as it were toughened and indurated.

The deposition of purulent matter on the uterine surface of the placenta is mentioned by the late M. Dance* in an interesting case of fatal vomiting and inanition during the early months of pregnancy. Between the placenta and uterus there was a layer of concrete pus which could be lifted up by the back of the scalpel, in the form of yellowish flocculi, and whitish pseudo-membranous concretions existed between the membrana decidua and the internal surface of the uterus. M. Breschet† in his essay on the human ovum, states that he had met with two analogous cases of purulent and pseudo-membranous effusions between the placenta and uterus, and over the surface of the membrana decidua, the substance of this membrane being at the same time thickened and infiltrated with purulent matter. In a memoir on diseases of the uterus, inserted by M. Dance in the Archives Generales for October 1829‡, he has described a case of abortion preceded by febrile and inflammatory symptoms, and where there was a layer of soft coagulable lymph and purulent matter deposited, not, as in the preceding instances, on the uterine, but on the fœtal surface of the placenta, between its chorion and amnion; the placental portion of the chorion was at the same time opaque and greatly thickened.

Before concluding the description of the anatomical characters and effects of placentitis, it is almost unnecessary for me to remark, that in the same placenta two or all the different stages of inflammation are very often found coexisting together in different cotyledons and surfaces of the organ, or even in the same cotyledon and surface; and that every shade and transition may be occasionally observed in an inflamed portion of the viscus, from congestion to the effusion of coagulable lymph and of purulent matter, either in an acute or chronic form. In proof of this remark, I may merely refer to the instances of the disease that I have last quoted, and to 1st, 5th, and 6th cases of it reported in M. Brachet's Memoir.

In most of the cases of placentary inflammation hitherto published, the disease has only been recognized at the time of delivery, and neither the causes which gave rise to it, nor the symptoms which it had produced, have in general been accurately traced. Very limited data, therefore, it must be allowed, exist with regard to these parts of the history of placentitis. These data, however, so far as they go, are not without interest or practical importance; and in order, if not to arrive at, at least to approximate to, as accurate a degree of information as they are calculated to afford, I have selected twenty of the recorded cases of the disease, from among others given in the writings of Ramsbotham, Brachet, Dance, Stratford, and D'Outrepont, for the purpose of comparing and analyzing their phenomena with particular reference to the points I have mentioned. In making the selection of these twenty examples of placentitis, I have acted solely on the principle of uniformly rejecting all those cases of the disease to which no kind of commemorative history was attached, and which, consequently, could be of no use for the purpose at present in view, while I have as uniformly retained all those other instances of the affection that had any commemorative history connected with them; and I only regret that, in a considerable number of these cases, this history is so imperfectly given as to furnish little or almost no precise information*.

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* Repertoire Generale d'Anatomie, Tome iii, p. 71.

† Etudes Anatomiques, &c. Sur l'Oeuf, dans l'Espece Humaine, p. 123-4.

‡ Archives General. de Medecine, Tome xxi, p. 222.

* The following note contains a list of these twenty cases. In order to facilitate the references that are made in the text to the cases individually, I shall affix a particular numeral to each, and at the same time state, for the sake of the greater precision, the kind of inflammatory lesion which the placenta exhibited.

Ramsbotham, Practical Observations, Part I, Case I. (p. 94); 2, (p. 106); 3, (p. 108); 4, (p. 109); 5, (p. 122); 6 (p. 125);) 7, (p. 129); 8, (p. 131); 9, (p. 179)—all instances of adherent placentæ; in case 2, the membranes were likewise singularly adherent.

Brachet, Journal Gener. de Medecine, Tome cii, Case 10 (p. 13), extensive chronic inflammatory induration; 11, (p. 15), the half of the placenta in a state of acute and inflammatory congestion; 12, (p. 20), chronic inflammation; 13, (p. 22), two abscesses on the fœtal side of the placenta; 14, (p. 23), a very large abscess on the fœtal side of the organ, with surrounding hepatization; 15, (p. 25), effusion of coagulable lymph and pus at many points throughout the placental parenchyma; 16, (p. 33), uterine surface of the placenta adherent.

Dance, Repertoire Generale d'Anatomie, &c. Tome iii, Case 17, (p. 71), an effusion of coagulable lymph and purulent matter between the uterus and placenta and over

Causes of Placentitis.—With respect, however, to the exciting causes of placentary inflammation, I may, in the first place, mention that M. Brachet enumerates as such, blows upon the belly, falls, violent succussions, sudden and great movements, frights, emotions, all kinds of lively and profound sensations, and diseases of the mother, particularly metritis and other inflammatory complaints. In turning to the individual cases given by M. Brachet, I find that in two instances (cases 10, 16), the disease seems to have come on, while the mother was suffering under great mental anxiety; in a third case the only assignable exciting cause was a severe fright which the mother had experienced ten days previously to the abortion, at the fourth month of pregnancy, of a fœtus, the placenta of which was in the first stage of inflammation; and in a fourth instance, the mind of the patient had been kept harassed during the whole period of pregnancy with domestic quarrels. In two other of M. Brachet's cases (12, 13), as well as in two cases of adherent placentæ, mentioned by Dr. Ramsbotham (1, 8), the inflammatory action was apparently produced by falls. In one of Dr. Ramsbotham's cases (7), the affection was attributed to carrying a heavy basket against the side during pregnancy, and in the instance of acute placentitis, given by D'Outrepont*, (20), too tight lacing, with a view to conceal pregnancy, appears to have acted as the exciting cause. In two of Dr. Ramsbotham's cases of adherent placenta (2, 5), the inflammatory action productive of the adhesion seems to have been excited by blows upon the abdomen. In one of these cases (5), where the blow was received upon the fore part of the abdomen, the placenta is afterwards mentioned in the history of the delivery as firmly united to the fore part or corresponding portion of the interior surface of the uterus. I refer to this case the more that Saxtoph and Wenzel† state that the placenta when attached to the anterior wall of the uterus is frequently morbidly adherent—a circumstance that D'Outrepont* says is consonant with his own experience, and one, I conceive, for which we may perhaps account by supposing, that the organ, when occupying this situation, will be more exposed to the physical injuries already alluded to as capable of giving rise to placentitis, either directly or indirectly, by exciting, in the first instance, inflammatory action in the continguous or corresponding portion of the uterine parietes. Of the remaining cases of placentitis upon the list, no allusion is made to any exciting cause of the disease in the history of five of the cases (3, 4, 6, 17, 18), and in the remaining three instances (9, 14, 19), it appears that no exciting cause could be traced, although inquiry was made after it.

Among the predisposing, if not among the exciting causes of placentary inflammation may, I believe, be justly enumerated the existence of the same state of disease in a previous pregnancy. It is well known that morbid adherence of the placenta to the uterus is occasionally met with in several successive pregnancies in the same woman. Dr. Hamilton states in his "Practical Observations†," that he has known several mothers of large families, who had, in the course of their child-bearing life, incurred three or four or even five times great danger from this circumstance. Mauriceau mentions two cases, in one‡ of which abortion had occurred either four or five times, and in the other§ five times in succession, between the sixth and seventh months of pregnancy, and without any evident exciting cause. The infants appeared to have died some days before their expulsion, and the placentæ of all of them are stated to have been scirrhous, or affected with chronic inflammatory induration, generally throughout almost their whole extent. In one of Brachet's patients (case 14), abscesses were found in the placenta of two consecutive pregnancies, and this case is the more remarkable, that the placentary inflammation in the first instance was evidently in consequence of a fall, while, as I have stated above, no exciting cause for the disease could be traced to account for the disease in the subsequent pregnancy. In connection with these facts, I may here, at the same time, mention that other forms of placental disease besides inflammation show the same tendency to recurrence in different pregnancies in the same individual. The tendency to the repetition of abortion in women who have

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the external surface of the decidua vera. Archives Generales de Medecine, Tome xxi, case 18, (p. 222), an effusion of pus and coagulable lymph between the placental chorion and amnion.

Stratford, London Medical and Surgical Journal (1829) Vol. ii, Case 19 (p. 89), inflammation of placenta and membranes of the ovum, with effusion of coagulable lymph.

D'Outrepont, Gemein. Deutsche Zeitsch. für Geburt. Bd. v. Hft. 4, Case 20, (p. 556), acute inflammatory hepatization.

* Gesammelt. Schrift. ii, s. 359.

† Gemein. Deutsche. Zeit. für Geburt, Bd. v, Hf. 4. p. 556.

* Kleinert's Allgemein. Repert. loc. cit. s. 82.

† Practical Observations on various subjects relating to Midwifery, p. 286-7.

‡ Observations sur la Grossesse et l'Accouchement. Obs. 283, p. 235.

§ Ibid. Obs. 141, p. 198.

once suffered from it, is a fact which the practical accoucheur has constantly occasion to observe, and numerous striking examples of the great frequency of its repetition in the same woman have been put upon record*. In many of these cases of recurrent abortion, the affection appears to be connected either with placentary congestion or inflammation. Dr. Gooch†, in the second volume of his "Chirurgical Works," has recorded an instance where the placenta was found ossified to a greater or less extent in the same patient three several times; and Bonus‡ observed a case of a similar triple recurrence of the hydatiginous condition of the placenta or chorion.

It would be interesting, and in some respects practically important, to ascertain the duration of the different stages of placentitis, or, in other words, the variety of morbid lesion which the organ might be most apt to present to us, according to the distance of time that may, in any given case, have elapsed, between the application of the exciting cause of the disease, and the ultimate expulsion of the organ from the uterus. But the twenty cases which I have above noted afford very little satisfactory information relative to this point. I find that in nine only out of the twenty cases are any data mentioned, by which the time between the application of the probable exciting cause of the placentitis and the time of delivery can be ascertained with sufficient accuracy. In one of these cases (11), where the disease appeared to be of ten days' duration, the half of the placenta was affected with the first stage of inflammation; in a second (19), in which the symptoms had lasted for 13 days, there was an effusion of coagulable lymph and purulent matter between the placental chorion and decidua; in a third case (6), of three weeks' duration, there were adhesions between the uterus and placenta that were capable of being easily separated; in a fourth case (5), the adhesions between the uterus and placenta were rather strong, although the disease was only apparently of a month's duration; in a fifth case (13), in which two abscesses were found in the placenta, the first symptoms of the disease had occurred after a fall about seven weeks previously; in two other cases (1, 16), there were chronic adhesions with the uterine surface, and in one of these cases (16), the adhesions are described as very strong, the affection having lasted for several months; and in the two remaining instances (10, 12), where chronic induration of the placenta was found, the placentitis seems to have continued in one case (10), for four and a-half months, and in the other (12), for two months.

Symptoms of Placentitis.—The symptoms accompanying placentitis must necessarily be considerably varied, by its more or less acute or chronic character, by the extent and seat of the inflammatory action, and particularly by its happening to be complicated or not with inflammation of the contiguous portion of the parietes of the uterus. When we consider the frequent chronic nature of placentary inflammation, its apparent occasional confinement strictly to the substance of the placenta, and the fact that though nerves have been alleged to have been found in the umbilical cord and placenta itself, none have hitherto been distinctly shown to pass between it and the uterus, or, in other words, between the placenta and the mother, we may be disposed rather to wonder at placentitis giving rise so generally to symptoms more or less marked in the maternal system, than that the disease should sometimes be latent in its character.

The symptom which seems most constantly to accompany placentary inflammation is pain or pains fixed to the uterine or lumbar regions, or to some part of these regions, and differing in different cases in intensity, character, and duration.

Pain in the uterine and lumbar regions has been observed in almost all those cases of placentitis, the history of which has been traced with any degree of care. But this symptom, it must be confessed, may present itself also during pregnancy, as an effect of other pathological states of the uterus or its contents, besides placental inflammation; and, again, it appears to have been wanting in some instances in which this disease actually existed. When the full histories, however, of individual cases of placentitis shall come to be more patiently and accurately investigated, such exceptional cases will probably diminish greatly in number. In the meantime I may only observe, that in estimating the value of this symptom as a pathognomonic mark of placentary inflammation, we must not reject it as an uncertain one (as many British accoucheurs seem inclined to do), from the fact of its occasionally occurring, in a well-marked degree, during a greater or less part of utero-gestation, in cases in which the placenta is ascertained at the time of delivery not to be morbidly adherent; for we must recollect that this adhesion of the placenta to the uterus is only one of the various morbid effects or lesions to which placentitis gives rise; and in many such cases as those to

* In Plouquet's Literatura Medica, tom. i. p. 8, a number of references may be found to the works of authors that have mentioned examples of the frequent recurrence of abortion.

† Cases and Practical Remarks in Surgery, vol. ii, p. 250.

‡ Mad. Boivin, Sur la Mole Vesiculaire, p. 24.

which I allude, if the placenta itself be carefully examined after its expulsion, one or more of these lesions will generally be detected in its substance, or in its membranes.

When after the action of any of the exciting causes of placentitis, which I have previously enumerated, a local lumbar or uterine pain supervenes, we may, as M. Brachet has stated, in general presume with considerable confidence upon the presence of placentary inflammation: and here, it appears to me, we should in some cases be able to make an useful practical application of uterine auscultation in the diagnosis of this disease; for if we find the seat of pain to correspond with the seat of the placental soufflet, the certainty of the connection of that pain with placental inflammation will necessarily be greatly increased. I make this remark on the supposition that Monod, Kennedy, and Paul Dubois are correct in referring the sound in question solely, or in its greatest degree of intensity at least, to the seat of the attachment of the placenta to the uterus, if not to the utero-placental vessels themselves.

In endeavouring to ascertain the exact seat of the local pain in any given case, more caution is required than seems to be generally believed. On this subject I cannot, I believe, do better than copy the just remarks and judicious injunctions given by Dr. Ramsbotham*. "We frequently meet," he observes, "with great vagueness in the description of pain, and particularly in the description of the situation of that pain, and, if anything like precision be desirable, the patient should be requested to lay her hand on the part. A woman will tell you she has got a pain at her heart, and if you apply this test of the situation of the pain, she probably applies the hand to the epigastric region, or to any part but that over the heart. If she complain of a pain in the side, she probably applies the hand to the side of the belly; but even this test will not be sufficient to enable a professional man to discriminate between a pain in the parietes of the belly, and one situated in the uterus or in the parts underneath. If he wish to arrive at any degree of accuracy in this respect, he must examine the part with his own hand. The apparent indelicacy of this act must give way to the patient's welfare."

On consulting the histories of the twenty cases of placentitis that I have previously enumerated, I find that pain in the region of the uterus or loins was complained of in seventeen; in one of the remaining three cases (14) the sensation amounted only to a feeling of dragging (tiraillments) in the lumbar region; in another (4) the patient is merely described as having been out of health for two months previously to delivery; and in the third (18) it is distinctly mentioned that no local uterine pain was ever complained of. Of the 17 cases in which uterine or lambar pain was present, in two (5, 7), the particular seat of the pain is not specified; in two (11 and 13), it is described as existing both in the uterus and loins; in five (10, 12, 15, 16, and 17), it seems to have been felt only or principally in the lumbar region, and in the last (17) of these five cases it extended down from this region along the thighs. In another case (19) the pain in the loins was accompanied by a strong bearing-down sensation in the uterine region; and in seven cases (1, 2, 3, 6, 8, 9, and 10), it appears to have been entirely confined to some part of the uterine tumour. Out of these seven cases in which the pain was seated in some part of the uterus alone, in three (8, 9, 20), it is mentioned as having been seated towards one side of that organ; in one (1), as felt between the umbilicus and pubis; and in three (2, 3, 6), it was felt in the region of the umbilicus or the fore-part of the uterine tumour.

The character of the pain is described in three cases (6, 9, 20), as constant; in one (1) as almost constant; in another (7) as at first remittent, and afterwards constant; and in six as remittent (1, 5, 10, 12, 13, 15). Of the six cases in which it was remittent, in one (13) it was increased by leaving the horizontal posture; in two (1, 5), it was increased during the night, and in one of these two (1) the part which was the seat of the pain (viz. the lower and anterior part of the uterine tumour), was tender to the touch, but the pain itself was not rendered greater by motion. In one (3) of the instances in which the pain was confined to the fore part of the uterus, the patient appears to have found relief in lying upon her belly and face in bed. In most of the above cases the particular nature of the pain is not mentioned, but in others it is variously described, as dull, heavy, burning, obscure, &c.

In the greater number of the cases, the pain supervened within a few hours, or at most within two or three days after the application of one or other of the exciting causes already mentioned, and generally continued more or less from that period to the end of utero-gestation. In one case (10) the pain was relieved, and in two others (12, 16), removed by the detraction of blood.

In one of the cases (18) recorded by M. Dance, already particularly alluded to as not accompanied by uterine pain, there was most obstinate vomiting for three months, defying all remedies, and at last producing death, apparently by inanition, between the third and fourth month of pregnancy; and in the two instances previously referred

* Practical Observations, p. 77.

to as met with by M. Breschet*, in which anatomical pathological appearances were found similar to those in this case of M. Dance's, a similar state also of frequent, obstinate, and very violent vomiting accompanied the disease. In M. Dance's case, though the uterine surface of the placenta was extensively inflamed, yet the fœtus did not appear to have suffered, and it seems probable, therefore, that the placentary inflammation only supervened towards the last days of life, at the same time, perhaps, that the slight attendant febrile symptoms first appeared. In two of the acute cases of placentitis (17, 19), mentioned by Stratford and Dance, shivering with febrile symptoms supervened in the course of the disease; and in one of the instances (12) given by Brachet, febrile symptoms came on along with lumbar pains on the night after the patient was exposed to the injury, which apparently acted as the exciting cause of the placentary inflammation.

In several instances of suppurative inflammation of the placenta alluded to by Cruveilhier, he appears to have observed as a very uniform symptom, a kind of continued hectic febrile movement, with an exacerbation in the evening, preceded or not by shivering. Dr. Burns† describes a species of fever which he has observed to affect women about the middle period of pregnancy, and that appears to be not unlike in its principal characters to the disease described by M. Cruveilhier: he states that this affection makes its attacks suddenly like a regular paroxysm of ague; that it soon puts on rather an appearance of hectic; and on the whole, he conceives, it bears a great analogy to the infantile remittent fever. This disease, Dr. Burn's adds, is very obstinate, and often ends in abortion. Has not the placenta in such cases been the seat of inflammatory action?

Professor Wilde‡ mentions also slight fever and great heat, as common symptoms of placental inflammation, and when this inflammation happens to terminate in suppuration, he describes a dragging sensation and shiverings as supervening, with dull heavy pains in the uterus and thighs, that are more especially felt on standing or walking. The same author states, that in placentitis the urine is sometimes passed in drops, and with a sharp pain, and that when the disease runs on to induration or hepatization, the dull local uterine pains are occasionally accompanied by a white, irritating, and abundant discharge from the vagina. In Mr. Stratford's case (16) a discharge of blood from the vagina appears for a short time to have preceded the expulsion of the diseased ovum; and Mauriceau* mentions in the details of one of his cases of recurrent abortion from indurated placenta, which I have formerly alluded to, that a small quantity of blood was usually voided per vaginam, for ten or fifteen days previously to the labour-pains coming on. In M. Dance's first case (17) the aortic pulsations were unusually strong, a symptom that may perhaps be pointed out as affording, in most instances in which it occurs, an indication of increased or inflammatory action in the extremities of the vessels more immediately arising from that artery.

In considering the different symptoms of placentits that I have had occasion to mention in the preceding pages, it is difficult, and, indeed, in the present state of our knowledge, altogether impossible, to estimate justly what degree and variety of these symptoms ought to be attributed to the placentary inflammation itself, andhow much the character and combinations of them are liable to be varied by that inflammation of the adjoining internal surface and parietes of the uterus, by which the placentitis is often accompanied and complicated. In order to arrive at anything approaching to accurate information upon this point, a much greater number of carefully observed facts than at present exist on the records of medicine, will be required. But I may here observe, that, out of the twenty cases of inflammation of the placenta previously enumerated, in two of the instances (18, 19), in which the disease appears to have been principally confined to the fœtal surface of that organ, the characteristic pains were well-marked, and even severe, while in the only case (18) in which this local pain was entirely absent, the inflammatory action was seated on the uterine surface of the placenta and membranes, and the tissue of the uterus itself was, on post mortem inspection, found to be softened. The local pain, also, seems almost always to cease after the process of labour and the expulsion of the diseased placenta. In one case (16), however, the region of the pubis continued tender for some time after delivery.

Morbid adherence between the placenta and uterus, the result of adhesive inflammation between their contiguous surfaces, besides being accompanied by more or fewer of the above-mentioned symptoms during pregnancy, is almost uniformly marked, at the time of delivery, by a more or less profuse and sudden flow or gush of blood attending upon each recurrence of uterine pain or contraction after the birth of the child, and even sometimes also during the act of its expulsion. The exceptions to this general rule, more especially to the occurrence of hæmorrhage with each after-pain,

* Etudes, &c., de l'Oeuf, p. 124.

† Principles of Midwifery (1832), p. 224.

‡ Ryan's Medical and Surgical Journal, vol. vi, p. 573.

* Observations sur la Grossesse, Ob. 283, p. 233.

as long as the placenta is allowed to remain adherent, are very rare. In instances, however, such as those met with by Wrisberg*, Desmoreaux†, and Ramsbotham‡, of apparently universal adhesion of the placenta, no hæmorrhage can be expected, and Dr. Hamilton§ has recorded an example of another form of morbid adhesion, where no hæmorrhage took place after delivery to indicate the diseased state of the after-birth; in this instance the central portion of the placenta was healthy, but around its whole border or circumference the organ for the breadth of an inch was morbidly and firmly adherent to the uterus.

(*To be continued.*)

ABSTRACT
OF
A CLINICAL LECTURE
ON EPIPHORA AND FISTULA LACHRYMALIS.

DELIVERED BY MR. LISTON, AT THE NORTH LONDON HOSPITAL.

June, 1836.

I WISH to make some observations on a disease which appears rather trifling, but which requires considerable management in its treatment—

Fistula Lachrymalis,

A term applied to a variety of affections of the inner canthus of the eye, improperly in many cases, as mentioned by Mr. POTT. Previous to his time, the nature of the disease had been misunderstood; indeed, the functions of the part liable to this affection were not known. The disease was long considered an encysted tumour; the practice to relieve it was therefore imperfect. Pott describes the affection well: his improved treatment of it, however, is hardly to be recommended; he advises that openings should be made into the sac, and that they should be dressed with some stimulating application, until the nasal duct was exposed. In other cases the lachrymal bone was then to be perforated. I will now point your attention to cases which you will be called on to treat in practice. First, you will occasionally meet with cases of chronic distention of the lachrymal sac, an accumulation of secretion from the sac and eye; this is not fistula, it is properly a sort of dropsy of the sac; it is not very easy to say how this affection takes place. It is supposed by some to be the result of disease in the Meibomian glands and conjunctiva. Scarpa takes this view of the case, and supposes that the viscid secretion blocks up the nasal duct; you will, however, meet with cases of this sort, in which the Meibomian glands and conjunctiva are perfectly healthy. The disease may arise from secretion in the sac itself, and is likely to follow inflammation produced by cold or other causes, either attacking the sac primarily or extending along the continuous membrane, from above or below. In cases where there is no inflammation of the sac, the patient, from time to time, relieves himself by squeezing from it a quantity of vitiated mucus. You are not warranted in operating, you should first employ mild measures; a small quantity of blood may be taken from the neighbourhood of the affected part, in such cases, with advantage; but more good is likely to result from the repeated application of very small blisters. It has been proposed to pass a probe from above downwards; the instrument, by a little practice, may be thus passed readily, and some of the patients who have been so treated, have now and then been much relieved. It is not easy to understand why this should be the case, considering the very small size of the instrument that can be introduced through the canaliculi and puncta.

It has been proposed to inject the sac, but there is no occasion for this, so long as the puncta and canaliculi remain pervious. Sir William Blizard recommended the plan of attempting to force the passage by a column of mercury, but this practice has been long since abandoned. The clearing of the duct from below, is a far more feasible plan, but is not much resorted to, though easily put into practice; the notion has been long entertained, though only lately brought to perfection. The probe should be made of proper form to pass into the lower part of the duct; you must bend it into a shape almost like a catheter; get its end under the inferior spongy bone, press it against the posterior part of the passage, and it is easily passed up. Numbers of cases of epiphora were thus cured by the late Dr. MAXWELL, of Dumfries, who was in the habit of using catgut bougies, properly moulded, and gradually increasing in size. The best instrument for this purpose, however, is a small sound, with a second bend in it; you will see it represented in M. Velpeau's work; I think it is a contrivance of M. Gensoul; in this shape it is easily introduced into the passage. This affection arises from inflammation produced by cold or other causes, in the lachrymal sac; this may be slight and followed by an accumulation of vitiated mucus in that organ, which eventually gives way; ulceration takes place, and a regular fistula lachrymalis is formed, discharging the contents of the sac and secretions through an opening in the integuments at

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* Comment. Med. Physiol. Anat. et Obstetr. Argum., tom. i, p. 44.

† Dictionnaire de Medicine, tome vi, p. 420.

‡ Practical Observations, p. 82.

§ Practical Observations, part i, p. 286.

the corner of the eye. In such a case you will be called upon to relieve the patient by making an incision from without into the nasal duct. It is said in books, that abscesses of a similar character form over the sac, without having any communication with it. This however, is of very rare occurrence, and its presence may be distinguished by its not being so deeply seated as the other, which is also hard and attended with much greater pain. To evacuate this matter from the lachrymal sac you cannot do better than use a narrow sharp-pointed bistoury. You must have a full recollection of the anatomical relation of the parts, allowing for their displacement and the great thickening of them, otherwise you will be foiled in your efforts to relieve the patient. The surgeon must not be satisfied by merely making an opening into the abscess, but he must carry his incision fairly into the canal. Instruments for the purpose of guiding styles and tubes into the canal have been invented by my friend, Dr. LUBBOCK, of Norwich, I now show one of them; you will perceive it is nothing more than a sort of sharp-pointed director. You must follow the bistoury by a probe, to clear the passages. A very unsurgical proceeding has been recommended—the insertion of tubes of various forms. I have tried the plan in six or seven cases; the patients seemed relieved for a season, but returned in a few weeks, or months, as bad as ever. The operation, nevertheless, is a very beautiful one—the patient is delighted with it. The morning after the introduction of the tube all inflammation and irritation in the corner of the eye has ceased, and the cure appears perfected, the tears being carried through the tube to the great comfort of the patient; but the tube beginning to cause irritation, as every foreign body does, it becomes necessary to remove it. I do not recommend the employment of the tube, but I will point out the plan by which you would remove it if called in to a case in which it had been employed. You would first cut down and expose the head of the tube, seek for its opening, and then fix into it a probe which has a screw at its extremity; in this way you will easily remove the tube. It has been proposed to pass a seton down the passage, at first of small size, but to increase it gradually. I, however, prefer the use of the style.

After the point of the bistoury has been fairly lodged in the lachrymal duct, a probe is passed along it, the knife is then withdrawn, and the passage is gently dilated with the probe. This is followed by the insertion of one of Mr. Ware's styles, somewhat longer than usual, made either of silver or pewter, of the same calibre through its entire length, and just as long as the duct. It is necessary to begin at first with a small style, and gradually increase it in size. The instrument should be removed from time to time; when, by the continual use of styles thus gradually increased in size, the duct has been dilated to its full extent, and appears to be restored to its sound condition, the instrument may be withdrawn. The following case illustrates this plan of treatment satisfactorily.

The patient was admitted into the hospital some time since, for ophthalmia; after that was relieved in the usual manner, a small red and painful tumour presented itself at the inner angle of the eye, over the lachrymal sac. The tears continually flowed over the cheek. It did not appear at first that the tumour was continuous with the sac; an incision was made into it, and a small quantity of pus flowed. The tumour was smaller and less painful the following day; pus in small quantities continued to flow. In the course of a few days it was evident the tumour communicated with the sac; an incision was made into it with a bistoury, after which a style was introduced. This was on the 6th of June. On the 8th the style was removed and replaced. The tears did not flow over the cheek. On the 12th a large style was substituted. The patient continued to improve from that time, the dilating instrument having been several times introduced.

In cases of epiphora, then, I recommend the passing of the probe from below upwards. If there is inflammation of the sac, when the duct is cleaned out, put on a blister the size of the finger nail, and repeat it frequently; it is well to try this, often, in the first instance. When an abscess has formed, or a fistula has actually taken place, clear the passage from above downwards, introduce your bistoury fairly into the canal, continue the use of the style until contraction is removed. You may occasionally, afterwards, introduce a probe from below upwards, to keep the passage clear and prevent a return of the disease.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXIV.

Generation of Quadrupeds, &c.

Harvey, in describing the generation of viviparous animals, or those that bring forth young like themselves, concluded that the reproduction of quadrupeds threw much light on that of man, and he therefore commenced his observations in these words:—

"Inter *vivipara* autem, principem locum homo obtinet, animalium omnium perfectissimus: deinde (ut à notioribus progrediamur) *animalia* quæ nobiscum degunt, passimque obvia sunt, annumeranda veniunt; (quorum alia sunt *solipeda*, ut equus, asinus: alia, *bisulca*, ut bos, capra, ovis, porcus, cervus: alia *fissipeda*, seu digitatis pedibus, ut canis, felis, cuniculus, mus et hujusmodi alia,) ex quorum generationis modo, de reliquis omnibus viviparis judicium instituatur. Quare (ut in ovis fecimus) unum aliquod genus primo, tanquam cæterorum omnium exemplar, proponam; quod, ut pote notissimum, reliquis lucem offerat, et norma sit, ad quam alia omnia per analogiam quandam referantur." (Exercit. lxiii.)

This illustrious physiologist also alludes to his frequent opportunities of examining the uterus of the inferior animals immediately after copulation, as in cows, goats, bitches, cats, and other animals; and his numerous observations and dissections led him to conclude, that all animals were procreated from an egg: "Cuncta animalia quodammodo ex ovo nasci affirmavimus."

"Piscium tamen ova mutato aliunde alimento, augentur; insectorum etiam, crustatorum ac mollium ova, foris habent, unde crescant; nec minus tamen ova appellantur, et revera sunt." Aristotle had previously maintained that all animals were oviparous: "Omnia tam natatilia, sive ovi forma proveniunt, simili modo gignuntur." (Hist. Animal.)

The analogy which we remark between the human ovum and those of other mammiferæ is so strong, that it is now universally admitted as a positive fact.

In imitation of former physiologists, I shall briefly describe the reproduction of some of the more perfect quadrupeds, with a view of elucidating this function in the human species; and I shall quote the researches and conclusions of Dr. Harvey, on generation in the deer species.

Mammiferæ differ from all the classes of animals already described, in being viviparous, that is, in procreating within the body, and bringing forth living offspring, which are nourished by a peculiar fluid secreted in the mammæ or breasts; and hence the term mammiferæ, or mammalia, which signifies having breasts, and is applied to the heifer, mare, bitch, most quadrupeds, and also to the human female.

The mammiferæ procreate their young in the womb, or *uterus*, which is a fleshy organ, situated in the bony cavity between the haunches, and technically called the *pelvis*, and in which the fœtus is developed and protected until it is capable of enjoying an independent existence. The womb is connected with the external genital aperture by a membranous and muscular

canal, termed the *vagina*, the external orifice of which is named the *vulva*. The use of this canal is to admit the male organ, conveyance of the sperm to the womb and ovaries, and also the passage of the offspring through the portal of life. There are two other canals, one on each side, connected with the fundus or superior extremity of the uterus, which open into its cavity, are called the *uterine tubes*, and are destined to convey the sperm to the ovary, and the germ, or new being, from it into the womb. The ovaries are two bodies, one on each side of the uterus, as already described and illustrated, containing a number of vesicles, germs, ova, or eggs, which, after fecundation by the spermatic fluid of the male, are conveyed by the uterine tube next to the vivified ovule into the cavity of the uterus, to which the newly formed being becomes attached, so as to be supplied with blood from the mother, and gradually to develop until the time of birth arrives. Thus, in proceeding from the external genital fissure internally, we find in the female of all mammiferous animals, as well as in woman, 1, an external fissure or vulva; 2, a musculo-membranous canal or vagina; 3, a muscular organ or uterus; 4, a small canal on each side, or the uterine tube; and 5, a round body on each side of the uterus and tube, the ovary or feminine testicle. It is proper to remark, that the destruction or morbid alteration of the womb, tubes, or ovaries may produce incurable sterility, as we shall fully notice hereafter.

The sexual apparatus of the male is composed of—1, an external organ or penis, which, when excited by venereal impulse, becomes distended, enlarged, and hard, or is erected so as to facilitate its introduction into the vagina; 2, two glandular organs called testicles, destined to secrete a fluid, called sperm, seminal spermatic fluid, or seed; 3, a canal or tube from each testicle, designated vas deferens, deferent tube, which conveys the spermatic fluid, secreted by the testicles, into the lower part of the abdomen, in which it is deposited in a sac on each side, denominated seminal vesicle, in which it is accumulated until the time of copulation; 4, two ejaculatory canals, one on each side, arising from the seminal vesicles, which convey the sperm into the urethra at the time of ejaculation or emission; 5, the urethra or canal in the penis, which transmits the seminal fluid into the vagina of the female, and also permits the evacuation of the urine. Thus the testicles prepare the spermatic fluid, the deferent canals convey it to the seminal vesicles, these retain it for several days until it becomes prolific, and excites the act of reproduction, the ejaculatory canals transmit it into the urethra, and this canal allows it to be deposited in the vagina*.

The accumulation of the fecundating fluid in the seminal receptacles, for some days, until its thinner parts are absorbed, excites the whole genital apparatus, and the male is relieved from this state by the expulsion of the fluid. The ejaculatory muscles of the penis contract convulsively, and by pressing on the seminal receptacles, propel the sperm into the urethra, from which it is forcibly ejected towards the orifice of the womb. The womb, in common with all parts of the genital apparatus, being vividly excited by copulation, and especially by the spermatic fluid, absorbs and sucks into its cavity this fluid, which is conveyed by one of its tubes to the ovary whose germ is about to be animated. The influence of the spermatic fluid, or a vapour arising from it (*aura seminalis*) on the ovary, detaches one of its germs, eggs, or ovules, which is drawn by the attracting power of the uterus through the tube into its cavity, there to be transformed into a new living being. We shall perceive hereafter, by incontrovertible evidence, that this

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* It is right to observe, that many quadrupeds are deprived of seminal vesicles, and secrete the sperm during copulation only.

is the mode of reproduction of all the mammiferæ, including the human species.

As soon as the fecundated germ is deposited in the cavity of the womb, it undergoes a series of successive changes, analogous to those observed in birds. It is covered by a fine delicate membrane before it enters the uterus, called amnios, filled with a limpid fluid in which it floats or swims.

The impregnated uterus becomes congested or possessed of an unusual quantity of blood from the instant of conception; throws out a kind of lymph on its internal surface, which is converted into a membrane, which lines its cavity, and is pushed down by the germ on entering it. This is the *decidua* in the human subject, and the *chorion* in inferior animals. The reflected portion of it is called the *decidua reflexa* in the human species, and adheres to the amnios. The union between these parts forms a vascular or spongy network, and receives the blood from the mother for the nourishment of the embryo. This spongy union forms a roundish or irregular mass, which is called the *placenta* in the human species, which signifies a cake. A number of veins rise from the inner surface of this organ, and finally form one vessel, which proceeds to the umbilicus or navel of the embryo, which it enters, and conveys the blood into its circulation for its nourishment and growth. After the blood has passed through the fœtal circulation, it is returned by two arteries (the umbilical) to the placenta, and thence carried into the circulation of the mother, to be regenerated or arterialized by respiration. The two umbilical arteries and vein are so interlaced or twisted round each other that they form a cord, which is covered by membrane, and is called the *umbilical cord* or navel string. The parts termed umbilical cord, amnios, and chorion, in quadrupeds, and even in the human being, are called secundines, or afterbirth, because they are not expelled until after the birth of the offspring. The expulsion of these organs or parts in our species is popularly designated by our continental contemporaries, deliverance, or delivery. There are many quadrupeds that have no placenta, as will appear hereafter, though the womb nourishes the embryo.

So soon as the fœtus in the mammiferæ acquires sufficient strength to enjoy an independent existence, the uterus or womb contracts and expels it into the world in the following manner:—The orifice of the womb and the vagina dilate; the membranes which surround the fœtus are pushed downwards, and, with the fluid they contain, form a soft wedge, which opens or dilates the orifice of the womb; they are burst at length by the contraction of the womb, and the fluid which surrounds the fœtus is discharged, the young animal passes through the vulva, is separated by nature or art from the parent, respires, and becomes an independent being.

The new being is feeble, and almost always blind, in quadrupeds; ordinary aliments are incompatible with its economy, and it requires to be directed by its parents in its career of life. Nature provides for it by affording it milk, which it sucks with avidity, and which the mother applies with zeal and pleasure. The human species alone is sometimes deprived of natural aliment, and of the cares necessary for its well-being, and the laws which nature has engraved on the heart of all female animals are violated in this solitary instance.

When the mammiferæ are fully developed, they seek after and perform the function of reproduction. This epoch is marked by vigour and an unusual boldness, and is called *heat*, or *rut*, and varies in different animals according to their size, vigour, and duration of life. Thus it happens in two or three months in mice and other quadrupeds of this species; at five or six months in rabbits; at seven or eight in hares; about a year in dogs and foxes; at two years in wolves; at two years and a half or three years in horses; at

three or four in camels; at seven or eight in stags, which live a long time; and at twelve or fifteen in elephants.

The females of animals are more precocious than males, and propagate at an earlier age. It is also well known to naturalists and agriculturists, that the young of animals will be most vigorous when early or premature procreation is prevented. Thus the finest whelps are obtained when the female does not reproduce until two years old; and colts of a mare of four years old are always more robust than those of another which was covered a year sooner by the stallion. In consequence of the greater precocity of females, the mare is capable of procreation a year before the horse.

The season of *heat* or *rut* occurs but once a year in many animals, and at fixed periods for each species. Thus, we observe it every year from November to April in sheep; in the depth of winter in foxes and wolves, during fifteen days; and during the same period in October, with roe-bucks; in autumn with bears, &c.; in January and February with cats, during fourteen or fifteen days; from the end of March to the end of June with cows, &c. Some animals are in heat almost immediately after they have suckled their young, as rabbits, hares, &c., and others repose for one or several years, as bears, camels, elephants, &c. The puerperal evacuation continues for a week or longer in woman, and unfits her for reproduction; and during its continuance sexual intimacy ought to be avoided. Female animals are much more lascivious at the time of rut or heat than males, and generally provoke or solicit them. A great or less quantity of a viscid fluid escapes from the vulva, in some species; and this is sometimes sanguineous. The season of rut is accompanied by remarkable phenomena, which deserve to be briefly noticed in a few of the most perfect species, as in stags, camels, elephants, and lions.

Stags are in rut about the commencement of September. This state commences by a kind of melancholy, which makes them seek solitude. They walk with the head downwards both day and night. After having remained in this condition for two or three days, they suddenly manifest an unusual degree of ferocity; they attack men, and all other animals that come in their path. This fury increases in four or five days more; they then pursue the females with excessive velocity, and do not forsake them until they have exhausted all their ardour.

After the rut of the old stags, that of the younger commences, but with much less impetuosity. The excesses of their rage is especially manifested during the night, from four or five in the afternoon to eight or nine in the morning. During this period of time, the males fight with fury, and often inflict mortal wounds on each other. They are sometimes entangled by the horns; and it is not uncommon for wolves to put an end to their combats by devouring them.

The rut of the old stags continues about fifteen days with the same impetuosity, and that of the young only four or five days, and with less intensity. The huntsmen and dogs that pursue them at this time encounter great danger, and often fall victims to their temerity; as these animals sometimes attack them with the fury of lions.

The males feel the effect of rut more powerfully than the hinds, and copulate with fifteen or twenty of the latter in rapid succession. Both exhale an odour at this time, which is sometimes so strong and offensive to dogs, that they often refuse to pursue them.

Harvey adduced the history of generation of hinds and fallow deer as an example of the functions in all other viviparous animals. He informs us that he was permitted by Charles II. to dissect a great number of them after copulation during several years, and that his observations were very numerous on these and other animals. (Exercit. lxiv)

He commences his history with an account of the anatomy of the uterus and its appendages in hinds and fallow deers (Exercit lxv); and in the following Exercitation (lxvi) describes the copulation of these animals. He informs us that these animals admit the male at one season of the year only, about the middle of September, and that they bring forth their young about the 24th of June. Their gestation continues, at least in this climate, for nine, and not eight months, as stated by Pliny. At the season of rut the males collect with the females, or separate from them; the older males join each other, the females congregate with each other, and younger ones with those of their own age. They exercise the genital function for an entire month; its commencement is late in dry weather, and earlier in humid seasons. During the time of sexual impulse they assault men and dogs; though they are sometimes timid and weak, and take flight on the barking of dogs. Every male knows his females, and will not permit them to wander from his flock, or if they do, he recalls them. He walks up and down, or before his conjugal zealots, and is a most diligent keeper. If by chance he meets a strange female, he does not pursue her ardently; but if a strange male approaches his flock, a battle ensues. The females are considered amongst the most chaste animals; they object to the vigour of the male at first, and will not yield or admit congress unless compelled or fatigued. This is also the cause of the aggregation of the females about their favourite males; and these are the oldest and strongest: for if a strange male approaches, desirous of copulation, they immediately fly to their proper husband and flock, as if to an asylum, that they may preserve their chastity and modesty.

If a young male meets a solitary female, he runs to her immediately, hunts her to fatigue, and finally overpowers her.

Males prepare places for copulation, which are called "their rutting place;" they dig furrows or pits, or stand on an elevated situation, and oblige their paramours to approach them in turn. "Quæ coitura est," continues Harvey, "posteriores pedes in scrobem (in hoc paratam) demittit, sidensque (si opus sit, ut insiliens mas, unico initu taurimo more) eum protrudens verberet, coitumque absolvat." The females of other animals place themselves on a declivity under the same circumstances.

Old and robust stags have several females in their flock, the young and infirm ones have fewer. They combat for ten or fifteen days; and those who observe them assert, that the female is impregnated after the second or third copulation, and then she avoids and refuses to admit the male.

The male, after having impregnated his females, becomes quiet and much more timid; he is thinner, and deserts his flock; he wanders alone; he feeds with avidity, so that he may recruit his diminished strength; and he does not approach a female for the remainder of the year. (Exercit. lxvi.)

In the month of September the uterus, its caruncles, and vessels, enlarge considerably, though the ovaries do not. "I have never found the male sperm, or any thing referring to conception in the uterus. Nevertheless, the males copulate daily; and I have dissected a vast number of females." (Exercit. lxvii.)

This last fact was repeatedly attested in numerous dissections made in October: "Nunquam tamen in uteri cavitate, aut ejus cornibus, semen aut sanguinem, alteriusve rei vel vestigium quidem reperire licuit." He proceeds to observe, in a subsequent part of this section, that he could not find any thing in the uterus of bitches, rabbits, and many other animals, immediately after copulation, or for several days afterwards. The fœtus is not formed, according to his opinion, either in oviparous or viviparous animals by the male or female sperm projected in coition, nor by the simultaneous mixture

of both, as physicians imagine; nor by the menstrual blood, as supposed by Aristotle; nor could I detect any thing immediately after coition, necessary for conception:—"Neque protinus à coitu, conceptus aliquid necessario constitui." The emissions of both sexes during coition do not form the fœtus. "Quied autem sit, quod à mulieribus petuluoribus in coitu, cum virum resolutione, ac voluptate, non minus quam à viris, profluit; et an necessario ad conceptum faciat, utrum à testiculis proveniat an sit semen, et num prolificum alibi a nobis dictum est." (Exercit. lxviii.) The conclusion is, that the female fluid is not prolific, but vaginal and uterine mucus, and glandular secretion, which is equally or more abundant after conception, and that the ovarian vesicle affords the germ, and is too small to supply such fluid.

OBSERVATIONS
ON THE
STRUCTURE AND PHYSIOLOGY
OF THE
HUMAN SPINE.

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[*Read before the Surgical Society, Ireland, at the Royal College of Surgeons in Ireland, on the 27th May*, 1836.]

"Bespeak of a workman a piece of mechanism which shall comprise all these purposes, and let him set about to contrive it; let him try his skill upon it; let him feel the difficulty of accomplishing his task, before he be told how the same is effected in the animal: nothing will enable him to judge so well of the wisdom which has been employed, nothing will dispose him to think of it so truly."
Paley.

Such were the sentiments of an eminent writer, regarding the structure which is now about to engage us; and when we recollect the vast comprehension and research of the mind from which they emanated, we are, as it were, involuntarily drawn to a closer consideration of the subject, in order to search into the contrivance and wisdom of that great designing Power, which are here so truly exemplified.

In applying ourselves to the works of nature, we should constantly bear in mind, that every constituent material bespeaks a peculiar design; no structure is fortuitously placed; and above all, superfluous variety is universally abstained from. And if *in limine* we link ourselves to this well-founded truth, it will teach us to pause at intervals, and inquire, instead of, as is but too often the case, giving vent to some idle sentiment of wonder or admiration, and allowing all recollection and thought to pass away.

When a splendid edifice, raised by the labours of the human architect, is presented to our view, we can have a very competent knowledge of the whole, without much scrutiny or investigation. We know that the designer thought fit to chisel and adorn his work for the sole purpose of indulging the eye by an imposing elegance, and we, therefore, are regardless, in a great measure, of each trivial ornament or decoration. But in nature's plan it is quite different. She does not adopt a single atom that is not stamped with a necessary use; and therefore, unless we exercise an investigating mind, and inquire into each individual material, we are, by an ignorance of a part, involved in an incompetent knowledge of the whole. We may, in fact, observe, that the beauty of human works but too often consists in some useless addition; whereas, that of nature's works is principally displayed in the wonderful adaptation of her means. "In nature's machines," remarks the celebrated Hogarth, "how wonderfully do we see beauty and use go hand in hand."

Guided by such prefatory reflections, I shall consider the structure, properties, and uses of the spinal column, or that central chain of bones which forms the connecting medium between the upper and lower divisions of the human frame; and in doing so, I shall avoid entering into any minute anatomical detail of the various processes which these bones present, presuming that we are all acquainted with this portion of human osteology, which is so admirably laid down in books daily within our reach. Suffice it to say, that in the spinal column we have a series of irregular-shaped bones, called vertebræ, superimposed on each other with the intervention of elastic materials; and with such exquisite ingenuity are these constituent parts arranged, proportioned, and fitted together, that while the whole structure resembles in a remarkable manner a spring of considerable power and freedom, it, at the same time, possesses a degree of strength and stability, which we could scarcely have believed was compatible with the free mobility enjoyed.

In order to convey with clearness and pre-

cision, the means by which such opposite properties are attained, I shall make a transverse vertical division of the pile, founded on the almost distinct uses of the anterior and posterior portions; I shall call the anterior, which is composed of the bodies of the vertebræ, intervertebral substance, &c., the columnar, or proper supporting portion; and I shall treat of the posterior, as the annular, or proper protecting portion.*

With respect to the first of these, the anterior of the columnar portion, it is composed of the bodies of the vertebræ, separated by elastic material, and protected both anteriorly and posteriorly by strong membrane running in a longitudinal direction, which forms an imperfect sheath for the contained structures.

The body of a vertebra is of an ovoid form; the long diameter (varying according to the region we apply ourselves to), presents four surfaces, an anterior, convex transversly; a posterior, rather concave in the same direction, for the accomodation of the spinal marrow, and a superior and inferior surface, opposed to corresponding ones of the adjacent vertebræ. If we examine its internal structure, by making an horizontal section, there is presented a beautiful cellular arrangement, surrounded by a dense cortex of compact bone, the design of which was evidently to attain lightness, and avoid any useless superfluity of material.

Let it not be understood that this lightness was adopted so much with the view of saving the muscles any additional labour which they might meet with, were the bodies of the vertebræ wholly composed of dense tissue, as to prevent, as much as possible, any undue pressure on the intervening elastic substance, in which the springy property of the spine chiefly resides; which property, be it observed, would evidently be spoiled in the exact ratio of the weight to which the structure possessing it was subjected. Now, this view I am anxious to impress particularly, in order to show with what ingenuity any clogging of the most prominent property of the spine is avoided, as also to do away with a misconstruction, which, I fear, is too generally put on the chief use of the above arrangement; for I cannot see how any material stress would be experienced by the powerful spinal muscles, even were the bodies of the vertebræ dense and compact in their internal tissue. Moreover, the surrounding contractile organs, constantly keeping up an equipollent tone, preserve the column in an upright position, and, except on the occurrence of some unusual exertion, the weight is always directed downwards, or on the intervertebral substance, and not so much on the lateral muscles.

The next structure we shall allude to as entering into the proper columnar division of the spine is the *intervertebral substance*.

In the London Medical Gazette for the 15th December, 1835, I published a short paper comprising the views which I was led to entertain of the structure, properties, and uses of this remarkable provision. I there exposed the deductions which my premises were capable of affording; and having since recurred to the consideration of the subject, and the examination of the tissue itself, I have the satisfaction of stating that the views there laid down have in no wise been controverted. In the paper alluded to, I remarked on the crucial arrangement which the external portion of the intervertebral substance observed; I suggested a use for such, and endeavoured to confirm it by experiment. I stated, that the whole was possessed of marked elasticity, and proved, contrary to the opinion entertained by Mr. Abernethy, in his Physiogical Lectures, that the internal portion or pivot, as it has been called, is peculiarly endued with it.

By my late investigations into the minute arrangements of this structure, I have, however, been led farther. I had been engaged in making a comparison between some of the principal tissues of the human frame; amongst them was that which now engages us. It was dissected carefully from the bones which enclose it, and subjected to maceration for the space of four months. On examining it at the end of that period, I was forcibly struck with the beautiful appearance which it presented; I found that the internal part, which is perfectly cartilaginous, maintained its original homogeneous character, but that the external division displayed alternate circles of cartilage and fibrous membrane, the former having a semi-pellucid appearance, and the latter being perfectly dull and white. These distinct portions, concentrically deposited, were clearly manifest; and it occurred to me at the time, that I could not compare it to anything more aptly than the common fortification agate, which presents regular striæ concentrically arranged. Thus, we can ac-

* These portions differ also in their period of development; and we here have a remarkable instance of the observance in one bone of that rule which is observed throughout the osseous system generally: I allude to the earlier development of those bones which are required immediately after birth, as the ribs, or respiratory bones, than of those which are not so soon called into use, as the levers of locomotion. So in the present instance, as is observed by the author of the article "Age" in the Cyclopædia of Anatomy and Physiology, the annular portions of the vertebræ, which are required to defend from the earliest period the spinal marrow, are developed, or "strongly ossified," as he says, at birth; whereas the bodies, or supporting portions, which are not so soon required, are "very slightly expanded," and all but devoid of earthy particles.

count for the elasticity and firmess enjoyed here.

Before I pass on to the next structure, I would observe on the peculiar shape of the intervertebral substance. It presents a compressed sphere, thereby respecting, as it were, the type which we find in some of the inferior vertebrata*. This we may satisfy ourselves on, by making an antero-posterior vertical section of a portion of the spine, comprising two vertebræ and their connecting media, when we shall expose an elliptical-shaped cavity with its angles truncated, in which the intervertebral material is lodged.

Traversing the bodies of the vertebræ in a longitudinal direction, both anteriorly and posteriorly, we have the common ligaments of the spine. The posterior one, which corresponds to the anterior paries of the canal, is not of such marked strength and firmness as the anterior, which is remarkably well developed, and possesses considerable strength. These structures are denominated fibrous, and are said to be completely inelastic. How can this be? We are daily in the habit of hearing the beautiful springy property of the spine elucidated, and immediately following it, a description of longitudinal sections of an unyielding inelastic sheath. If we take a common spring or any flexible elastic material, and envelope it with an unyielding material, the exercise of its principal property is totally and of necessity crippled, and we expect no other result. I would therefore say, that if I must, contrary to reason, yield the inclasticity of the long spinal ligaments, I must deny the possibility of the slightest flexion taking place in the column, which is contrary to fact. Indeed, the general impression affords an extraordinary instance of an opinion universally maintained, which is at the same time directly opposed to a property as universally allowed to exist.

There is a well known physical law, that in any flexible material, an elongation of the fibres takes place at the convexity of any curve which may be made in the said material; while a squeezing in of the fibres occurs at the concavity. Of this I avail myself, and, concluding that an appreciable stretching of the fibres of the intervertebral substance must occur at the convexity of any curve which may be made in the spine, so must a property of yielding in a corresponding degree be possessed by any material which traverses it. Hence, I am urged, contrary to the prevailing opinion, to conclude that the ligaments in question are *elastic*.

When I recollected the necessity for the long spinal ligaments possessing some degree of elasticity, I was induced to investigate their minute structure. I therefore dissected a portion of the anterior common ligament from the spine, and, as I was separating it from the bodies of the vertebræ, to which I may remark it most intimately adhered, I thought that I saw something more than mere fibres towards the surface that had been detached. It did not here, as on the anterior exposed surface, present such an evident fibrous arrangement; and on subjecting it to maceration for four months, I was not able to resolve the whole into fibres, but still remarked portions of white homogeneous material towards the surface which had been in contact with the bone. Is this cartilaginous? I am not yet prepared to meet this with an affirmative, but I must candidly confess, that I am inclined to view the structure as something different from tendon or fascia. In the posterior ligament, I did not observe anything of the above description, but it also must evidently yield with the motions of the spine*.

Having so far considered the first or anterior division, we shall next proceed to the second or posterior one. Here we shall observe the constituent materials differing in a marked degree from those entering into the columnar portion, and presenting tissues beautifully adapted to their respective offices.

In designating the second division the proper protecting portion of the spinal column, I did not, of course, mean it to be understood that it in no wise assists in the duty which is principally discharged by the anterior division. On the contrary, it must be evident, when we consider the articulations which are formed by the oblique processes, that the posterior circles also contribute towards giving support to the superimposed framework. I was aware at the time that my definitions were somewhat inadequate, and the best apology I can offer is the facility

* In fishes, all the vertebræ have a funnel-shaped cavity on each articulating surface, and in the space formed by the juxtaposition of two such cavities, we find an albuminous matter.

* While on this subject, I wish to record my doubt as to the correctness of attributing want of elasticity to many of those structures which are commonly called inelastic. That fasciæ, for instance, yield before the contraction and consequent swelling of the subjacent muscles, is, I think, not to be doubted. Bone, we all know to be elastic, and it has occurred to me, that the use of the curves in the long levers is to allow their elasticity to come more fully into play, and thus do away with the effects of jars. Hence, we find them best marked in the supporting pillars or extremities on which the weight of the frame comes. Furthermore, I may perhaps digress by observing, that if we examine the vast material world before us, we shall probably find our class of purely inelastic materials more insignificant than we should have supposed.

which the division affords to the clear communication of my views.

When we recollect the office which the posterior part of the spinal column has to perform in protecting an organ of peculiar delicacy and importance; the extensive line of attachments which it affords to powerful muscles, and the necessity of its enjoying a full degree of mobility to play in unison with the anterior division, we cannot fail to conceive the extensive scope which was afforded to the exercise of the ingenuity and contrivance of the designer. Its necessary flexibility was not to interfere with that firmness and stability which were so evidently required, nor were these latter to interfere with the full play of the former. In such beautiful proportion are these opposite properties meted out to the column, that they afford mutual aid to each other; the elasticity on the one hand, by enabling the column to evade the effects of violence, prevents oftentimes a dangerous testing of the stability of the structure; and the stability, on the other hand, curbs and renders more vigorous the exercise of the spring.

The annular division of the spinal column presents a considerable tube, reaching from the cavity of the skull above to the sacrum below. It is composed of bone and elastic material distributed, as in the anterior division, in alternate layers superimposed on each other.

With respect to the bony portion, it presents irregular-shaped rings, with processes projecting in various directions, to afford attachments to muscles. Here we shall see, contrary to what was observed in the columnar division, there was necessity for considerable strength and density of material, in order to provide against the effects of sudden or violent muscular contraction; and hence we find nature has adopted these properties. The dense tissue of the rings may be displayed by an horizontal section, and a strong contrast is presented between it and the cellular arrangement in the bodies of the vertebræ. Another important advantage of the dense structure in the posterior circles, suggests itself to us in the disease to which the spine is so frequently liable. I allude to caries. We can readily see how this dense structure, which is known to be peculiarly obnoxious to the disease, may serve in staying the morbid march, and preventing an early alteration in the state of the spinal canal, thus giving time for the spinal marrow to accommodate itself to the changes about to take place. This is not mere theoretical speculation, for every museum affords specimens of carious spines, where three or four vertebræ have been deprived of their bodies, but their posterior rings have resisted the disease, and thus preserved the posterior paries of the canal.

In viewing the posterior wall of the spinal tube, we remark the peculiar manner in which the bony circles are flattened out, and overlap each other like the scales of fishes. These portions of the circles have been called laminæ, and terminate posteriorly in processes termed spinous. Such an arrangement is remarkably efficient in affording protection to the delicate organ within, as well as in giving advantageous points of insertion to the powerful dorsal muscles.

The next structure we shall dwell on is one which, from its peculiar properties, is worthy of particular attention; and as it is met with in such few parts of the human body, we are naturally more inclined to inquire into its precise nature, and to investigate the use of its distribution in the spinal column. The structure to which I allude is the ligamentum subflavum. By the overlapping of the laminæ of the vertebræ between which it is placed, we are unable to procure a view of it from without, and we are therefore obliged to remove the bodies of the vertebræ or the anterior wall of the canal, in order to have a correct idea of it.

This remarkable provision has been considered analogous to the middle coat of arteries.

It presents the same appearances, possesses the same physical properties; and I have found it to resist maceration and the putrefative process, equally as well as the arterial tunic. A comparative experiment between it, common ligament, and cartilage, enabled me to judge of its remarkable power of resisting the above processes.

Such considerations point out to us the peculiarities of this structure; and when we refer to the duties it has to perform in the spinal column, we shall readily see how admirably adapted it is for its position. We are aware that the posterior portions of the bony circles are at a considerable distance, comparatively speaking, from the centre of motion; and hence the greater disturbance being experienced here, there was the greater necessity for a provision which would freely yield to tension, and afterwards have the power of resuming its original state. Such a provision is the ligamentum subflavum.

Again, we find that this ligament, as it is termed, has, in addition to its other analogies with the middle coat of arteries, a peculiar power of resisting disease. On examining the valuable collection of Dr. Macartney, Professor of Anatomy and Surgery at our University, I met with a very fine specimen of carious spine, in which no less than four vertebræ had been deprived of their bodies, and yet the corresponding ligamenta subflava were to be seen in a state of perfect integrity. This property of resisting disease is evidently of considerable importance in a structure like the spinal canal.

While on this subject, I call to mind another important analogy which would appear to exist between the ligamentum sub-

flavum and arterial tunic, and which my friend Mr. Adams of this city was, amongst other interesting points, in the habit of alluding to in his lectures; I mean the peculiar red colour that both structures assume on exposure to the atmosphere; and my friend Mr. Willis has informed me that he has found ossific deposits in this ligamentous tissue, just as we have occasion to see them in the arteries. I do not recollect having seen this latter analogy.

Before we proceed farther, it may be well to remark on the ingenious manner in which transmission has been afforded to the nervous cords from the canal. We can readily conceive how, during the various and sudden motions of the spine, these nerves would be liable to serious injury if some particular plan was not adopted to guard against such. With this intention we observe the bodies of the vertebræ grooved out laterally, in order to bring the canal of exit which is between the crura of the bones as near as possible to the centre of motion. Thus, any dragging or tearing of the nerves is prevented during the motions of the spine.

Having so far given our attention to the principal parts entering into the composition of this remarkable pile, and having explained their individual peculiarities, we now pass on to the consideration of these component parts in their connected state, and to the examination of the mechanism of the column more as a whole and undivided structure.

In doing this, the first circumstance which strikes us is the manner in which the mobility is subdivided between so many joints, each possessing very inconsiderable motion individually, while in the whole combined there is capable of being developed a very free and extensive action. But this is not all. We also remark the ingenious distribution of the different kinds of motion. Thus, in the lumbar region we have twisting enjoyed, while in the cervical we have such totally prevented, by the interlocking of the bodies of the vertebræ; and hence, simple flexion and extension are the only motions to be observed here. I do not now allude to the upper articulations with the head, which shall demand our particular attention hereafter. Again, in the dorsal region, no twisting is permitted, in consequence of the costal articulations: simple flexion and extension are alone to be found here. All this is evidently with the view of rendering the spine more firm; for we can easily imagine how unsafe it would be to endue any one region with a considerable power of flexion and twisting. Hence we find, that when it is required to view objects behind us, the trunk is first rotated on the supporting pillars or extremities; then a twisting occurs in the lumbar region, and, lastly, the atlas moves round on its articulation with the dentata, carrying the head with it. Thus, the twisting of the body is scattered, as it were; and in the same manner, when it is required to bend the frame, a demand is made on those parts which are capable of flexion.

This distribution of the different motions immediately suggests to us the existence of a difference in the anatomy of the various regions of the spine; and so it is, that in making ourselves acquainted with the osteology of the pile, we are obliged not only to take a general view of the vertebræ, but also to be aware of the distinctions presented by them in the different portions of the column.

Although nature has throughout the structure in general studied to avoid any sudden angular motion, at the same time to diffuse sufficient mobility through it as a whole, still there was a situation where, in order to arrive at an almost exquisite perfection, she was forced, as it were, to give up her original scheme, and show a fresh and beautiful instance of her unbounded ingenuity.

On the summit of the column rests the head, possessing a considerable degree of freedom in its motions, which themselves are capable of many varieties and modifications; and so peculiar are some of them in their nature, that they afford us means of conveying our inmost sentiments and passions with as much decision and clearness as if we were to have recourse to articulation itself. This is so familiar to all, and presents such a very interesting topic for inquiry, that we naturally are at a loss to learn how the subject has been neglected and so frequently lost sight of. It cannot surely be denied, that when we have described the connection of the head with the spine, as also the motions enjoyed between them, the description must be imperfect unless we refer to the uses of these motions. In other parts we explain the uses of various motions; and why should it be neglected in this instance, which presents such a wide and extensive field for the thought to dwell on.

It is not my intention at present to enter on the consideration of this silent language, if I may so call it, as the limits which I have prescribed for myself necessarily preclude the possibility of my doing so. I therefore merely touch on it, in order to excite the interest of him who may possess better opportunities and materials for following up the subject.

I cannot, however, avoid dwelling for a moment on the very beautiful piece of mechanism which is presented to us, between the upper part of the spinal column and the occipital vertebra, or base of the skull. By the marked freedom of motion enjoyed here, there appears to be such a wide contrast with the other parts of the spine, that we naturally ask, how so great mobility can be compatible with the stability which must be peculiarly necessary in this situation. We find that the head is not only capable of

working on its huge joint, but that it can also turn round so as to describe a semicircle. Now, it is evident that it would be particularly unsafe to endue one joint alone with such extensive and opposite motions; and we therefore observe that they are divided, as it were, between two joints which are so arranged as to be nearly on the same level.

Let us suppose for a moment the atlas and dentata as one undivided bone. In this we have almost every essential part contained in the irregular bones beneath the body, processes, &c. Between its upper surface and the occipital vertebra, we have a regular hinge-joint, by which the flexion and extension of the head is effected; and in order to obtain the rotating power, the lower vertebra is split horizontally; the whole body, however, with the exception of the anterior arch, being left with the lower portion to form an odontoid process, and to play as a cylinder within the cylinder formed in the anterior part of the superior division or atlas, as it is called. Thus it is that nature has contrived to endue this small region with a remarkable freedom of motion, at the same time regarding the safety of the important organ lodged within.

In conclusion, I shall make a few observations on the bold but graceful curves which the spinal column possesses in the adult period of life. To them are due that steady, upright, and dignified carriage which the human frame is capable of assuming, and which stamp it with a marked and signal superiority. In the fœtal period of life, the column, which resembles a mass of gristle, assumes a simple curve, to accommodate the body to as small a space as possible. After birth, this curve commences to unfold itself, and remains the segment of a considerable circle for several months. By-and-by, when the child begins to walk, we cannot but observe the propensity which the body has to fall forwards; and we seldom, if ever, observe a falling backwards. This peculiarity is evidently caused by the spine being so curved, that the weight of the body is thrown forwards, and thus the central line of gravity is with difficulty maintained. Presently the frequent repetition of the above accident warns the child, and prompts him to exercise his muscular powers; the long dorsal muscles now come into play, by their action serve in pulling the column backwards, and in process of time, mould it to that beautifully curved form which it afterwards represents. Then it is that the central line of gravity is more efficiently maintained, by the heavy viscera in front becoming more within that line, and in consequence of the curvatures of the spine enlarging the thoracic cavity in its posterior direction. Lastly, towards the latter periods of life, when all the active powers are fading away, and muscular action becomes slow and deficient, the heavy, passive material or bone, groans, as it were, under its own weight, and the spinal column once more assumes that simple curve which it possessed in early life.

We therefore assume that the natural curvatures of the spine are brought about by muscular action; in this, I think, we are confirmed by simple observation. If we remark the natural alterations which occur in the shape of the column, under the different states of the muscular system, and the daily evidences we have of spinal deformities from a deficiency of the due and equable muscular tone, we cannot, I presume, question the important power which this influence must possess.

And it is such knowledge which leads us to the proper and scientific mode of treating those spinal deformities so prevalent amongst young and delicate females. Formerly, and I do not look very far back, it was customary to condemn the unfortunate patient to reclining boards, and many other pernicious contrivances, which, so far from effecting any improvement, had a diametrically opposite tendency, by weakening the muscular system and destroying the general health. This erroneous practice, founded on a gross and dangerous ignorance of real causes, is now, I believe, happily for the sufferers, totally exploded; and there is substituted for it a line of treatment having for its object the improvement of the general health and the restoration of muscular tone. Now, we are to recollect that in this peculiar deformity there is no absolute disease of any of the structures of the spine. If we examine the bones, cartilages, &c., we find the usual appearances presented by them, with the exception of a thinning of them towards the side of the concavity, and a fulness towards the convexity of the curve. This fact (I can scarcely term it pathological) I was first apprised of by Mr. Colles, one of our professors of surgery at the College of Surgeons, who has laid it down with his usual accuracy. On referring to my note-book, I find his words run thus:—

"In this disease we have the bones of the spine perfectly healthy, and on the side where the curvature presents its concavity, we find the bodies of the vertebra are thinned and fuller on the convex side. The intervertebral substance does not suffer so much as the bones."

This fact is fully borne out by a very fine specimen to be seen in the Museum of the School of the Royal College of Surgeons.

Report of a Trial for Infanticide, with Remarks. By C. A. Lee, M.D. New York..

Abigail Crosslan, an unmarried coloured girl, aged 22, was indicted for murdering her infant illegitimate child, and concealing its death, on the 14th of Nov. 1834. Her trial came on during the second week in September, before the Supreme Court of Massachusetts, holden at Lenox, Chief Justice Shaw presiding. assisted by Samuel Putnam and S. L. Wilde, Esqs., Puisne Judges.

The following is the substance of the testimony taken by the coroner, Robert Waterman, 18th Nov. 1834.

Eleazer Barker, Sworn.—Abigail Crosslan has had every appearance of being pregnant for some months past, but last evening I informed my wife, that something more than common was the matter with Abigail, and that I did not believe she would go longer than to night or to-morrow night. Last night she appeared to be unwell, but denied that she was sick. This morning she went about her usual work, doing the chores, and was out for a considerable time. We went this morning for her mother. She came, and went up stairs to examine the bed where her daughter slept; she came down and told her she had lost her child. At first she denied, and then confessed it, and said it was no bigger than her fist. We then went out to the barn-yard; we there found the after-birth and a quantity of blood in several places on the ground. The child was soon discovered, and, after I had examined it, I went and informed E. Enrign, Esq.

Mrs. Barker testified, that she had accused Abigail of being pregnant; that she denied it—that on Monday, the day the child was born, she kept about her work as usual, went at night to the barn-yard to milk; that she was gone a little longer than usual; came in and went down the cellar after candles; that soon after the witness saw something on the floor, which she called Abigail to mop up, asking her what it was? She replied she did not know. It was afterwards discovered to be blood. The next morning she got up and went about her usual work. Suspecting that she had lost her child, she charged her with it, but Abigail denied it. After some time, she owned it, but said it was no bigger than her fist, and that she had buried it with a stick in the barn-yard. On searching, the child was found behind and partly under the barn, wrapped in a piece of an old bag.

Drs. Oliver, Peek, and Silas R. Kellogg examined the body, under the direction of the inquest. Owing to the circumstances under which the examination was made, it was not so thorough as ought to be made in such cases. The body was that of a full grown male child, and no external marks of violence appeared, excepting signs of effused fluid under the scalp covering the frontal bones. Blood was found in considerable quantity, partly fluid, and partly coagulated. The pericranium was separated from the bone; the parietal bones were both fractured, the left one in three places, the right in one. The effused blood was principally over the back part of the parietal bones, and the upper portion of the occipital. The chest was externally arched, the lungs collapsed and somewhat spongy. Dr. Peek testified that the lungs filled the chest; that the injury was not inflicted after death, and that a blow sufficient to cause such injury would destroy life; that it must have been done after the delivery of the child, as the action of the uterus could not fracture the bones; and that the circumstances of the case warranted the belief that it was done by the mother. To the question by the court, whether the mother might not accidentally have caused the death of the child, by grasping the head for the purpose of facilitating delivery? it was replied, that he thought not—it was indeed possible that the bones might be fractured in this way, but if produced in this manner, it would not probably cause so much extravasation of blood. He thought it very difficult for a woman to be delivered standing, though it was possible; that females in labour instinctively seek a situation where they may support themselves and be supported; that is, a reclining posture; that the probability of the child's being born while the mother was standing was increased in this case, by the circumstance that the labour was short, and that it occurred in a barn-yard; that therefore it was possible that the death of the child was occasioned by its falling on its head, upon the frozen ground.

Dr. Kellogg testified to nearly the same effect; he thought, however, that the fractures could hardly have been caused by the mother's grasping the head of the child, as the bones, before the union of the sutures, would lap upon pressure. At the time the inquest was held, he formed an opinion that it came to its death by a blow inflicted by a stick or some hard substance. In examining the lungs, a portion only was cut off from each, an inch and a half or so in diameter. In the first experiment, the temperature of the water was about 80 degrees of Fahrenheit; in the next it was of the ordinary temperature of the atmosphere. The lung floated readily in each; the pieces remained in the water three or four minutes. The whole lung was not removed, as they were pressed for time. Did not observe any appearances of blood in the lungs, and did not try whether they would crepitate on pressure. A child may be said to be born alive, when it is furnished with such an organization as to be capable of maintaining an independent existence, when separated from the mother. Could not say that this child was born alive in this sense—thought

a woman would naturally, and, under all circumstances, seek a reclining position in labour—the effusion of blood might have been caused by a blow given shortly after death—thought that the presence of arterial blood in the lungs, would furnish a much stronger proof of the child having breathed than extravasated blood under the scalp.

Dr. C. A. Lee, on behalf of the prisoner testified that he believed their was no difficulty in a woman's being delivered standing; that he had delivered many in this posture; had often known females seek such a position, resting their hands and arms on a chair placed before them; thought it a very natural and easy position for a strong lusty woman; that some of the older works on midwifery directed woman to be delivered supported on crutches; had known cases where parturition had been effected by a single pain, and so suddenly that the mother had no time to get into a bed, or in a reclining position; that if a woman was suddenly seized with such violent labour pains in the street, or in a situation where the usual conveniences were not to be had, it was most probable she would be delivered standing; that this was probably the fact in the present case, as the fractures were in the very place we should expect to find them, had they resulted from such accident.

Dr. Sellor, of Amherst, also testified to that effect; and Mr. Swan that his own wife was delivered in the same way. On the cross examination, the medical witnesses for the government testified, that, in such cases, the physician ought to proceed according to the best authorities. The heart should be taken out with the lungs; the large vessels tied; the ductus arterio us and venosus examined; also, the foramen ovale, the brain, and abdominal viscera; and particularly, the colour of the lungs, crepitous feel, &c. All the tests should be used in such cases, which are recommended by writers on the subject, and even then there will remain a sufficient degree of uncertainty.

On summing up the case, H. W. Bishop, Esq., on the part of the prisoner, after a happy exordium, in which he adverted to the importance of the case, remarked in substance, that he should confine his observations chiefly to the first count of the indictment, which charged Abigail Crosslan with destroying her infant child; the government here were bound to make out a clear case; they must not talk of probabilities or of circumstantial evidence; the burden of proof rests upon them. As to her pregnancy, that we are willing to concede, but they must prove that this child was born alive, and with organs sufficiently perfect as to support life independently of its mother.

Was this child born alive? The physicians, able and learned as they are, and distinguished in their profession, are still young, and they had not the means at hand of conducting the examination according to the most approved tests. It is very evident that it was not satisfactory to the physicians themselves; and how was it conducted? The books direct that extreme caution should be used in such an investigation. 1st. The general appearance of the body is to be carefully noted, its size, weight, and strength, as also the proportion of the different parts carefully ascertained, whether there are signs of putrefaction, desquamation of the cuticle, ecchymoses, and other marks of violence, and particularly whether the umbilical cord has been ruptured or cut; and if ruptured, whether at the end or in the middle. If there are effusions of blood about the head, it is to be inquired whether it is probable they were produced by efforts of parturition, or by external violence. It should also be ascertained whether there are any foreign bodies in the mouth or trachea. These and many other particulars are to be ascertained, before proceeding to the dissection, which ought to be pursued in the manner recommended by Beck, Smith, and other writers on medical jurisprudence.

After laying open the cavity of the chest, it should be observed whether the lungs fill the thoracic cavity, or whether they are shrivelled and collapsed, and particularly whether their colour be florid or lightish gray. The position of the diaphragm should then be noticed, whether it be depressed or elevated. The ductus arteriosus and foramen ovale should also be examined, to ascertain whether they are open or closed.

The large vessels are now to be tied, and the heart and lungs taken out together, in order to subject them, in a satisfactory manner, to the hydrostatic test. In this experiment the temperature of the water should be that of the atmosphere, and care should be taken that it contain no gall. After using these precautions, and ascertaining whether the lungs will float, with the heart attached, the large vessels are to be tied, and the heart separated; after trying whether they will then float, they are to be weighed, in order to ascertain their relative weight compared with that of the body. This constitutes what is called the test of Plouquet; it is not the most valuable, but it is one which writers say should not be omitted. Incisions should then be made into the lungs, to see whether the tissue be spongy or compact, healthy or diseased, colourless or florid, whether crepitous on pressure, and the blood vessels injected. These are only a few of the particulars to which the attention of the physician must be directed, in order to form any satisfactory opinion, whether the child respired after birth. In the present case, these points were nearly all omitted; nothing was done but to cut off a portion of each lung and throw it into warm water—of course it would swim; the temperature of the water would cause such a rarefaction of the fluid

and the air vesicles as to sustain it upon the surface, even though the infant had never breathed. The experiment is, therefore, wholly unsatisfactory. True philosophy is not satisfied with a single experiment. She refutes and changes them in every possible manner, before she deduces those general principles which she is willing to publish to the world. The condition of the pulmonary blood vessels has always been considered a most important indication in such cases. If they are found charged with arterial blood, the surface of the lung presenting red points when cut into, it is very conclusive proof that the child was born alive; and we have the testimony of the physicians, that this would be a far better test than the extravasations of blood which were found about the head. Yet even this point was neglected in the hurry of the examination.

Again, we are told that there were fractures of the parietal bones, and considerable effusion of blood under the scalp. This being partly fluid and partly coagulated, is supposed to prove that the circulation was going on at the time the injury was received. Yet such appearances have been found where the infant did not survive delivery, and from the contractile force of the uterine pains. Physiologists tell us that the moment the nervous agency is destroyed the circulation ceases, as in cases of death by lightning, and severe blows, &c. If a blow, however, is received sufficient to impair, but not entirely destroy the nervous power, the circulation will go on as usual, as long as life continues. Such extravasations may, moreover, be caused by fœtal circulation, without supposing that the child ever breathed. It rests with the government to prove, that this infant was born alive, and capable of supporting an independent existence; i. e. that its nervous, sanguineous, and circulatory systems were sufficiently perfect. Has this been done? But if the child was born alive in this sense, who killed it? Was it destroyed by exposure to cold, falling upon the frozen ground, by a blow from the mother, or by her dashing it to the earth? The government say, it was by one of these particular modes; let them prove it. I know that it is possible the infant might have lost its life by blows inflicted by the mother, but we are not now called on to discuss possibilities, or even probabilities; the government must show that violence has been committed.

As to cases of delivery, when the mother is standing, they may be rare, but they do sometimes happen, as the medical witnesses for the prisoner testify. They may not often occur in genteel practice, and the reason is, that labour is usually more protracted, and the female is directed by her physician to take a reclining position; but in humble life, it is far different. Now, gentlemen, this poor, ignorant girl was delivered on the night of the 17th of November, on frozen ground, in a barn-yard, during a storm of commingled rain and sleet. It is worthy of remark, that there were no marks upon her clothes, as there must have been had she lain down, and thus been delivered. This is strong evidence that she was delivered standing. The cause of the fractures on the top of the skull will now be obvious: they were caused by the child's falling suddenly to the frozen ground. In Beck's Medical Jurisprudence, we have an account of a series of experiments performed in a French Hospital, to ascertain from what height a fall upon the head of a still-born infant would fracture the skull. In a large majority of cases it was found that a fall from the height of eighteen inches was sufficient to break the parietal bones; and what is worthy of particular remark, is, that the fractures in these experiments were caused in precisely the same situation in which they were found in the present case. It is then shown that a slight blow, comparatively, will fracture the cranium of a new-born infant. It has been proved that the manure had all been removed from the yard a day or two previous, and that the gravelly soil, rendered compact by long treading, was moreover frozen, thus presenting a surface as hard as the walk before this court-house. But the prisoner is charged with being "wilfully delivered in secret"—but she was not so delivered. It was her wish that it might happen under different circumstances; but imperious necessity forbade. You may be told that she might have gone to the poor-house; but this supposes a knowledge of the law. She could neither read nor write, and knew nothing about the poor-house; she knew that Mr. B. would not have her in his house; she had no home at her drunken father's, and no place to which she could go and find a comfortable asylum.

The conclusion of Mr. Bishop's able argument was occupied in showing that there were sufficient motives for the prisoner's concealing the child, without supposing that she destroyed it and then concealed it, for the purpose of secreting its death.

On the part of the commonwealth, Mr. Austin, the Attorney General, remarked in substance, that he was not about to make a formal speech, but to reason with the jury, and converse with them, as rational men, anxious to come at the truth, whatever it might be. Laws like this, which punish capitally for taking the life of a human being, are of the mildest kind. They tend to the preservation, and not the destruction, of life. But it is better to have no laws, than such as cannot be executed. Now, if the doctrine for which the opposite counsel contend, be true, then it never can be shown in any case that a woman is guilty of infanticide. No direct evidence is to be expected in a case of this kind; for it pre-

supposes that it is done secretly, and we have to rely on circumstantial evidence alone. As a general rule, no direct proof can be furnished; and if such is to be required, then all this legal array is a mere mockery, and you have been called from your homes and firesides for nothing. All you can ask, is, the *best evidence of the kind.* And now, what is the case? It is, that a wanton and lascivious woman was in a condition to have a bastard child, as she had already had one; and she knew very near, if not exactly, the time when she might expect her accouchement. In the next place she denied her pregnancy—made no provision for the infant, and no attempt to find a suitable place in which she might be delivered. In this situation, when the time came, she went into the barn yard, was delivered by a rapid process of labour, destroyed the child by blows upon its head, wrapped it in an old cloth, hid it under the barn, then returned to the house, said nothing about what had happened, and when charged with losing her child the next morning, she denied it—at length confessed it, but said it was no larger than her fist, and that she had buried it with a stick. Now, all these are circumstances furnish strong presumptive evidence of guilt, and you are to give them their full weight in forming your verdict. If there is not satisfactory proof that the child was born alive, then the prisoner is to be acquitted; or if born alive, and accidentally fell from her arms, or propelled by the efforts of labour to the earth, then she is not to be declared guilty. Now, it is possible that the child came to its death accidentally, or that the mother destroyed it: you are to decide which. There is nothing, scarcely, but what may be said to be possible. It is absurd to talk of reasonable doubts, when all the evidence is adduced which ought to be expected. As the child was not heard to cry, the opposite counsel tell you we have not the best evidence of life. But there is far better evidence of life than that: walking is better, and talking is better still. But, supposing that the child had cried, it could only have been heard by the mother. But was the child born alive? The opposite counsel have brought a French book here, which I think had better have remained in France, in which the opinion is maintained that a child may breathe, and still not be born alive. It may be technically true, that an infant may be born with such an imperfect organization as not to be able to maintain an independent existence, and thus speedily perish, but such a case would exhibit no marks of violence. But it is contended that a child may be half born and breathe; but from pressure on the cord, or other causes, may be still-born. Gentlemen of the jury, while the child is in the womb, it is a fœtus—and when in the world it is a human being, and entitled to a breathing in God's air. The law knows nor recognises no intermediate stage. This is a horrid doctrine, and, if established, must lead to horrid consequences. If no other good results from the present trial than to place a veto upon such a doctrine, it will prove a lasting benefit. You are to inquire whether there is satisfactory proof that this child breathed, and whether it had the capacity of maintaining life. Here science comes to your aid, and philosophy stretches forth her helping hand. There are eight or ten different modes of ascertaining whether an infant was born alive. Can you expect that physicians will try all their tests, and keep a coroner's jury all night to go through them all? No! They will take this course:—they will try a sufficient number of experiments to make up an opinion; if not satisfied with one, they will proceed to others. Complete satisfaction is all you ought to ask. A cask cannot be more than full. Now, there are two grand tests: one is called the hydrostatic—the other, the test of Plouquet. After the child has breathed, the lungs become specifically lighter than water; before respiration, they are heavier, and sink. If, then, the lungs be immersed in water, and float, we infer that the child was born alive; and this was the fact in the present case, as proved by the medical witnesses. If the experiment was a fair one, and satisfactory to the physicians, what more do you want? One such experiment is as good as a thousand. But it is objected that warm water was used, and therefore no dependence is to be placed upon the test. There would be some foundation for such an objection, had the temperature of the water been as high as 290 deg., but the doctor testifies that it was only about 100 deg., and 80 deg. is said in the books to be the most suitable temperature. It should be recollected, moreover, that the lungs floated in cold water likewise. Now, there may be, and are, exceptions to all rules; and so it is here. Putrefaction or artificial inflation may both cause the lungs to float, but neither of these are contended for.

The test of Plouquet consists in ascertaining the relative weight of the lungs, compared with that of the body, as that of the lungs is increased after the circulation of the blood through them has taken place by the establishment of respiration. But this experiment requires very nicely adjusted scales and the greatest care, and it is one which, in ordinary cases, cannot be performed.

To the objection that a child may breathe when but half born, and then die in this amphibious state, before it is wholly brought into the world, it is hardly necessary to reply, by showing that this could not have taken place in the present case, as it only happens in tedious and protracted cases; and, besides, in such instances the skull surely could not have been fractured, with-

out culpable negligence or manifest design on the part of the mother. Was there a sufficient motive for her to take the life of this infant? There was. It was to get rid of trouble, shame, and suffering. She had already been disgraced by giving birth to a bastard child; she was afraid to be confined at Mr. Barker's; she could not go home to her father's; and she thought if the child was only out of the way, she should get along easily. This was the motive, and it was a malicious one. The blows upon the head caused its death, as is known by the effusion of blood, which could not have occurred after death. The fact of the concealment of the child, has again and again in our courts been decided as proof to show that the mother was guilty of the murder. In ordinary cases, if a person should die in company with another, would the latter attempt to conceal it? Would a woman hide her child under a barn if it happened to perish during delivery? Should she do so, would it not be a suspicious circumstance? —ought not some satisfactory reason be given for it? Had she not been guilty, would she not unhesitatingly have carried the child into Mr. Barker's, instead of denying its birth and its death? If there is a single point established in morals, it is that guilt and falsehood go together. Innocence never prompts a lie. There, then, is conclusive evidence that she was criminal. But it is objected that the child may have fallen to the ground, and thus fractured its skull and caused its death. Reference has been made to experiments performed in a French hospital, where still-born infants were suspended by the heels, and thus let fall head foremost upon a hard floor, fracturing their skulls. From these you are asked to draw the original inference, that an American woman may go into a barn yard, stand up, and with one mighty throe give birth to a child; that that child may respire, have the blood sent through its lungs, and all the phenomena of life be fully developed in its passage from the mother to the ground! There is not a case on record where a woman voluntarily assumed a standing position to be delivered. Those French physicians who performed these experiments do not say that women are ever delivered standing. Animals are guided by instinct to lie down when in labour, and woman also, in the extremity of pain, is prompted to take the same posture. But it is contended that this infant breathed, and then was propelled by another pain to the earth. If so, this must have been a very remarkable birth. It had to fall but eighteen inches, and if it stopped short half way to breathe, it could not have fallen even thus far, and certainly not sufficiently rapid as to cause its death. Besides, how are you to account for the extravasation of arterial blood? (Here Judge Shaw observed, that the physicians only testified that the extravasation, in their opinion, showed the existence of fœtal life at the time of the accident, and not that respiration was established.) After some further remarks on this point, Mr. Austin* concluded his argument, by saying that the case derived much of its importance from the probability of its being quoted as a precedent, and as influencing future decisions. After an able review of the testimony, by Judge Shaw, the Jury retired, and the next morning brought in a verdict of *Not Guilty*.

Remarks.—There are several interesting inquiries suggested by the history of this case, satisfactory answers to which cannot but be useful to the medical jurist. And first—is there sufficient evidence that this infant was born alive? As to the external conformation of the chest, it was testified in general terms "to be arched." This surely can have no weight as evidence of respiration. The shape of the chest is subject to great irregularities, both in adults as well as in new-born children, and therefore no direct conclusion can be drawn from it. The same may also be observed with respect to the size of the lungs. By one of the medical witnesses it was testified that they were collapsed; by another that they filled the cavity of the chest. Now the lungs of still-born children differ in this respect; some occupying nearly the whole, others but a part of the thoracic cavity. Even after the child has lived for some time, the lungs may appear so much compressed, that were we to judge from this circumstance alone, we should probably infer that respiration had never taken place. Schmidt has recorded cases of this kind. The position of the diaphragm was not observed, but we do not consider it of much importance. We would say the same in relation to the closure of the foramen ovale and ductus arteriosus; for as these changes do not take place at the moment of birth, and frequently not until after several days, or even weeks, nothing conclusive can be determined from them.

It must also, we think, be conceded that the hydrostatic test, when employed with strict regard to the rules laid down by Beck, Smith, Ryan, and others, does not furnish such conclusive evidence that the child was born alive, that without other corroborative proof, we may positively affirm that such was the fact. Even when all due precau-

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* I regret that I am unable to present but a meagre sketch of Messrs. Bishop and Austin's remarks, not being accustomed to the business of reporting. I cannot, however, refrain from expressing the high satisfaction and pleasure I received from the consummate ability and learning which they displayed in arguing the case, and the intimate acquaintance they exhibited with every point connected with the subject.

tions are observed, and certain exceptions allowed, the floating of the lungs in water, in the opinion of those who think most favourably of this test, affords only presumptive evidence that the child outlived delivery. But even this presumption ought to be received with many grains of allowance. It is a well known fact, that the lungs may sink though the child survived its birth, for a child may live a short time without breathing, when the trachea is obstructed by mucus and the pulsation in the cord continues. Moreover, an infant may be born in such a state of feebleness, either from a deficiency of nourishment, imperfect organization, delay in delivery, pressure on the umbilical cord, &c., that if it respires at all, it will be but feebly, and the lungs will be so partially inflated as not to cause them to float when subjected to the hydrostatic test. The law of Scotland declares, that a child cannot be said to be born alive, unless it has breathed; and in suits under the law of Tenant by Courtesy, it has been decided again and again, that *crying* is the only admissible evidence of the child's having been born alive. By the English laws, however, the slightest voluntary movements constitute legal evidence of life. I have delivered two or three children that moved after birth, but never respired, except by artificial inflation, and such cases, I suppose, are not unfrequent. How long an infant may remain in a state of asphyxia, and be resuscitated, is not known with any degree of certainty; but probably it does not differ materially from that of adult age. Again, the lungs may sink, though the child respired after delivery. Many cases of this kind are on record. Bernt has recorded three instances of the kind: in one a seven months' child, that lived two hours, the lungs sank when entire, and only a few pieces, of a scarlet hue, floated. In another, which was born at the full time and lived a day, they also sank when entire, and only a few small fragments floated; and in a third, a seven months' child, which lived two hours, the lungs were ten grains heavier than water, and every portion of them sank. In the winter of 1832, I examined the lungs of an infant which had breathed for some time, and which sank in the water like lead. On examination, I found the air-cells filled with coagulable lymph, giving to them a fleshy, granulated appearance. Morgagni, in his Morbid Anatomy, remarks, that "the lungs of new-born infants may have a morbid gravity, owing to scirrhosity or inflamation, or they may be so affected with inflation, that if they were the lungs of an adult, they could not float—a circumstance which most anatomists, as well as myself, have perceived." (Vol. ii. p. 579.)

In those cases where the lungs sink from scirrhus, sanguineous engorgement or tubercles, the cause is so readily detected, that if proper attention be given, there is but little liability of error.

Another objection to the hydrostatic test, is, that the child may breathe before delivery, and yet be still-born. I have met with cases of this kind in my own practice. Dr. Scott, in the Ed. Med. and Surgical Journal, vol. xxvi, p. 68, has recorded an interesting case of this nature. Bernt, in his Historical Review, states that he had himself met with eight cases in which the child cried when the head was born, and the rest of the body remained in the passages; and two others, in which, after delivery by the feet, the lungs floated, though neither emphysematous nor decayed. Osiadel relates an instance, in which delivery was effected by turning, and the child was born quite dead, yet the lungs had a bright red colour, and floated in whole and in fragments, though neither emphysematous, putrid, nor artificially inflated. Bernt gives a case where, in a child delivered by turning and destruction of the head, the lungs were 150 grs. lighter than their own volume of water, and every part floated. In three other cases, where the fœtus was extracted from the uterus after the mother's death, portions of the lung floated. M. Baudelocque has communicated to the French Academy of Sciences a case of labour, in which the waters being evacuated, the face of the child presented to the neck of the uterus, and the child uttered cries as strong as if it had been delivered. It is doubtless true, that uterine, and vaginal, and extra-uterine respiration are of comparatively rare occurrence; but as they do sometimes take place, and the child is afterwards still-born, the mere floating of the lungs in water, ought not to be considered as furnishing positive proof that the child was born alive, even when the exceptions already noticed are allowed. Accordingly, in England and Germany the hydrostatic test is no longer considered conclusive. It will not be admitted in the British courts, and ought not to be in ours. There always must remain a reasonable doubt, and the accused is entitled to that doubt. If, therefore, this test, when employed with all possible accuracy and according to the most approved rules, is unsatisfactory, it should not for a moment be considered as possessing any weight, when imperfectly performed, and without the observance of the cautions usually prescribed. The position, therefore, taken by the Attorney General, that a single experiment, sufficient to satisfy the minds of the physicians engaged in the examination, is as good as a thousand, we suppose must be regarded only as a sample of special pleading, to which our brethren of the law are obliged sometimes to resort, even against their better judgment, and is not to be viewed in the light of a serious argument, which deserves a refutal. Supposing that this child was born alive, was it destroyed

by its mother? The circumstances which have been related; the denial of pregnancy and of delivery; her statement that the child was no bigger than her fist, and that she had buried it with a stick; the finding the infant with its skull fractured, and secreted under the barn; all these furnish strong presumptive evidence of the mother's guilt. On the other hand, she was very ignorant, and could not in the hurry and agitation of delivery be supposed to have reflected deliberately on the precise spot where the infliction of a fatal blow might pass as the result of accident; the labour was very rapid, and the ground hard and frozen, and her own story was, that her pains came on rapidly while milking, and as she rose up, the child fell and struck its head on the edge of the pail, and lived but a few minutes. As the counsel for the government undertook to prove that a woman could not be delivered standing, and that there is no instance of the kind recorded in the books, it may not be amiss to remark, that, besides the cases which we related as having occurred in our own practice, we have since heard of numerous cases in the practice of others. We can name, among several others, Drs. Sabine of Williamstown, Thomas, of Hancock, and Beck, of this city. In one instance related to us by Dr. Thomas, the same woman was delivered five times in a standing position. Dr. Ryan states in his Med. Jurisprudence, p, 142, that "the infant may be expelled suddenly, and falling on the floor or any hard substance, the skull may be fractured and the cord torn." Such cases are recorded by Hamilton, Chaussier, Henke, Klein, Pasquier, Meirieu, &c. Dr. Ryan states that he had met with three such instances. Dr. Klein, of Stutgard, as a member of the Superior Council of Health, caused a circular to be addressed to the accoucheurs of the kingdom of Wirtemburg, requesting reports of the cases of the sudden expulsion of the fœtus, which might have been observed by them. Returns were made of 183 cases; of these, 153 children were expelled while the mothers were in the upright posture, 22 while sitting, and six when on the knees; 21 happened at the first labour of the whole number: it is stated that not one child died, no fracture of the bones took place, nor any severe contusion; two only suffered temporary insensibility, and one an external wound, with ecchymoses on the right parietal bone*. It would appear from this statement, that injury to the child is an extremely rare occurrence in cases of sudden delivery; but it is highly probable that a large proportion of these cases occurred under the observation of the physicians who made the reports, and serious injury to the child was prevented by their interference. It is worthy of notice, that in the present case there were no marks of violence, except on the vertex, which could scarcely be expected where life had been taken by design. An important circumstance to be noticed in such cases, is the part of the umbilical cord which is ruptured, whether at the placenta or umbilicus, and also whether it presents appearances of laceration. If ruptured by the falling of the child, it would unquestionably be at the extremity, and not in the middle. It did not appear from the testimony, where the cord was divided, in the above case. We then come to the conclusion, that if born alive, this child probably came to its end by accidentally falling upon its head*.—*American Journal of the Medical Sciences, Feb.* 1836.

* Proof sheet of new edition of Beck's Medical Jurisprudence.

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* A trial for infanticide, under circumstances somewhat similar to the above, occurred in this city before Judge Woodworth, in 1819. Mary Gardner was indicted for murdering her infant child, which was found soon after birth, wrapped up in rags, and concealed in an old chest. The child was living when found, but died after a few hours. There were marks of violence on its head and neck, and three fractures on the centre of one of the parietal bones, diverging in a radiated manner, and considerable extravasated blood near the coronal suture. Dr. Bliss testified that great violence had been committed, such as would follow a blow from a poker, and that in his opinion it could not have resulted from any accident at birth, as a fall, &c. It was argued that there was no evidence of actual violence on the part of the mother, that the appearances might have resulted from accident, and notwithstanding the opinion of the physician, it would be wrong to draw the inference that she murdered her child, as the fact of concealment might be fairly attributed to a motive consistent with her innocence. Verdict, *Not Guilty*. There is no statute law against infanticide in this state, but such cases are decided by the principles of common law, and accessory circumstances are only considered as proving the intent. There must be actual, *not presumptive* proof that the child was born alive. The legal presumption is, that the child was born dead, and the law does not, as in England, throw the burden of proof upon the mother. She is not required to prove that it was born dead, but the government must show that it was born alive. This we believe to be placing the mother on the only just ground. The same evidence ought to be required in cases of infanticide, as necessary to convict in cases of homicide.

The London Medical
AND
Surgical Journal.
Saturday, July 16th, 1836.

REFORM IN THE COLLEGE OF PHYSICIANS—EFFECTS OF THE NEW UNIVERSITY CHARTER.

"PATRIOTISM," said the great Dr. Johnson, "is the last refuge of a scoundrel;" and however cynical this axiom may at first appear, it is quite correct. Of course the great moralist did not allude in the above to that species of the *amor patriæ* which burns in the breast of the lover of his country, pure and unsullied, but he referred to that *patriotism* which is assumed by individuals who, after they strived in every way to destroy the liberties of their countrymen; after they had vainly sought to aggrandize themselves at the expense of the common interest, have turned, in their disappointment and mortification, to be babblers for liberty, and professed promoters of the principles of liberality and justice. Who does not at once perceive the applicability of the above axiom to the patriotism or reformation lately exhibited in our various corporations? The Company of Apothecaries, the College of Surgeons, the College of Physicians, have each and all become *reformers*—have assumed that *reformation* which is "the last refuge of a"——monopolist, which is a mere masquerade dress to save an offender from ignominy and destruction. It requires little, very little, to prove the truth of this assertion. Who were the opposers of every species of reform for many and long years, and one of them for the space of three centuries? Why, the corporate bodies in question. The east was not farther from the west, than reform from the minds of the directors of these institutions, so long as they could safely carry on their iniquitous proceedings—so long as they could injure, insult, and defame the profession at large, trample on the privileges of its members, strangle the growing reputations of able and talented men—so long, we say, as the medical corporations could do this, however hated they might be—however disgusting their proceedings, when pourtrayed to the public eye—so long as they could do it with safety—so long as their ill-gotten spoil was not interfered with, they carried on their warfare with the relentless and merciless spirit of vampires. But when they themselves were in danger—when their proceedings, by the very extent to which their illiberality had been carried, had surrounded them with perils, and threatened to destroy them, they changed their *principles* as quickly as the mountebank changes his dress; and behold the unchanging conservatives of three hundred years are, in the space of a few minutes, converted into reformers! This is the kind of reformation which is "the last refuge of a"——monopolist. But will this flimsy subterfuge, this temporary assumption of liberality, satisfy the legislature or the profession? No! it only stands out in relief from the atrocities committed by the usurpers in power—to show how great a portion of meanness is mixed with their other virtues. The cloven foot is shown through their disguise, and no one will be deceived by them—no, not even after their last glorious display in admitting ten or twelve licentiates to the fellowship.

This last scene, played in Pall Mall, will, however, avail the actors but little. Their manœuvering will be, and is thoroughly appreciated, by the framers of the new University Charter, and such proceedings will be at once and for ever put a stop to.

The Metropolitan University Charter has indeed acted with the potency of a magician's wand—changed the entire aspect of medical affairs. It is that, and that only, which has induced the reforms which have of late astonished the profession. Had that not have been formed, the College of Physicians would have been now, as they have been for the last three hundred years, opposed to all reform,

haters of the very name of liberality, oppressors of their own licentiates, and the great mass of general practitioners.

The last act of the College of Physicians has stamped upon it a degree of infamy which it will be difficult in any after step to eradicate. Their reform scheme amounted to an insult of the profession, and an insult only. Who are the men chosen to the honour of the fellowship? Two or three among them, it is true, have done a little towards science, the others have nothing but their aristocratic connections, and their exclusive system of policy to recommend them. One only is admitted on the principle of gratitude; he has well served the purpose of the Pall Mall conclave, and it would be unjust for them not to return the favour at the earliest possible opportunity. The College have had the temerity to assert that the extent of their reform *shall* go no farther than the step they last took. Yes, they assert they will not consent to any thing further of a liberal character. Be it so; we do not care whether they *consent* or not—it makes little difference to us or to the profession; but of this we are assured, that the Charter of the New University will *compel* them to alter their tone.

With regard to the manœuvering employed by the College Council, for the purpose of defeating the objects of the Charter, it is worthy of the system they have always pursued. They have left nothing undone which could in any way serve their cause; they have stopped at no humiliation, at no species of chicanery which would keep them from the touch of the reformer, but they have found themselves miserably disappointed. They have found their often-repeated meetings, their deputations, their professions of reform, are of no utility to them—their character is too well understood for them to be trusted now. Their last effort has been like that of a drowning man catching at a straw: it will not save them from destruction. Who shall deny that theirs is the reformation which is "the last refuge of a"——monopolist.

GUY'S HOSPITAL REPORTS.

The following cases are a few out of 130, in which disease of the kidneys was discovered; and they offer additional evidence of the frequency of renal disease, as first clearly and ably shewn by Dr. Bright. It is only within a very recent period that the frequency of diseases of the heart was admitted, and there are still no small number of practitioners who doubt the fact. The same scepticism exists with respect to diseases of the kidney; and it is only to be removed by such evidence as we are about to adduce in the following reports:—

Albuminous Urine—Death with Convulsion, after disease had probably existed four years.—Dec. 25, 1835, I was requested to come immediately to meet Dr. Prout, in the case of Mr. W——, aged 17. I found him lying on his bed, with his eye-lids half closed, and his eyes rolling about in a kind of convulsive motion; his left hand lying powerless across his body; and his left leg almost paralyzed. His countenance was pale, tongue furred, and dry in the centre: respiration rather loud: pulse above 100, sharp and wiry: general surface, but particularly the head, warm. He complained of pain in the head, and lifted his hand to his forehead. His hearing was preternaturally acute: his vision nearly perfect, so that he saw and distinguished those around him; and he put out his tongue the instant he was desired. His urine was pale-coloured, acid, and very coagulable by heat. While we were in the room, he had a fit, in which both the leg and arm of the left side were violently convulsed; and he cried out with the pain he suffered, piteously requesting us to lay hold of his convulsed limbs. He seemed perfectly intelligent during the whole fit, and answered questions readily. The paroxysm lasted only a few minntes; after which he became placid, and went into the state of repose in which we first found him.

I learnt, on inquiry, that when only twelve years of age, being at school, he was attacked, after some over exertion, with hæmaturia; and this had recurred several times since, with very copious flows of urine, and a very frequent desire to pass it, so that he was called up three or four times every night. On one occasion, a small calculus had passed, which it is believed was composed of lithic acid, and he had been subject to great headach and constipation of bowels.

About eighteen months ago, Dr. Prout saw him, when labouring under an aggravation of his symptoms; and at the time his attendance was discontinued, the urine was still very coagulable, in which condition it

always remained. About three weeks ago he had attended a funeral, and was much exposed to cold; since which he had been obviously worse, though never kept from business. He was seen by Mr. Odling about ten days ago, who found that he had suffered more headach than usual: bowels constipated: tongue brown and loaded. He was ordered leeches to the temples, took purgatives, and got so much better, that on Saturday the 19th he was occupied in some business, which required great exertion both of mind and body, and exposed him to the cold; and he found himself so much confused, that he retired to bed; and when he was found there, about nine o'clock, he was affected with a most intense headach, vomiting, and a total loss of sight. Mr. Odling, seeing him in this state, got a large number of leeches; but whilst he was in the act of applying them to his temples, a severe fit came on, of an apoplectic character, in which the patient's countenance became dark and suffused, and his breathing stertorous. He was bled freely from the arm; and this was repeated three times during the night; but he experienced two more fits, like the first. In the morning, Dr. Prout saw him, and ordered cupping from the loins: and whilst this was being done, a fit occurred. On the Tuesday, fits, assuming more the character of epilepsy, occurred; in which the left side, which had remained weak after the first fits, was convulsed. On Wednesday, the fits returned; but it was evident that the mind was unimpaired during the convulsion. On that night they were frequent; and on the following day not less than twenty occurred. On Friday the 25th, the day on which I was called, they had recurred at intervals of about an hour, and were rapidly increasing. At eight o'clock in the evening, he became quite insensible; but he lived, with frequent convulsions, till two o'clock on Saturday morning: thus lingering nearly a week from the first appearance of the severe cerebral disease; during the last five days of which time, it was necessary to draw off his water every eight hours.

No examination was permitted in this case; but it is scarcely to be doubted what would have been the character of the morbid appearances. In this instance, the disease had, in all probability, existed for a period of four years before it proved fatal.

For the particulars of the following case I am indebted to Mr. Weatherfield: and I give it in his own words. The kidneys presented the most perfect specimens of the granular contracted variety of the disease; and Dr. Babington has given me a specimen of the nitrate of urea, obtained by Dr. Barlow from the fluid of the ventricles of the brain. —*Guy's Hospital Reports.*

(*To be continued.*)

Abortion, with Tardy Expulsion of an Undecomposed Fœtus. By Isaac G. Porter, M.D.

An article in a late number of the Medico-Chirurgical Review, on the "Signs of Pregnancy," has the following query: "How does atmospheric air get at blood confined within the uterus? We believe there is a medico-legal question now pending—perhaps decided—respecting the putrefaction, or supposed putrefaction, of the dead fœtus in utero. Does the fœtus become decomposed in utero when deprived of life?" The following case, which has occurred within a few months, is in point, and may be interesting both to the medical jurist and to the obstetrical practitioner.

Mrs. —— had proceeded to the fourth or fifth month of pregnancy, without experiencing any unusual circumstance. The signs of quickening, however, though anxiously expected, did not appear. With this exception, and the occurrence of severe dropsical symptoms, the other signs of pregnancy continued undiminished for another month. At this time the size of the abdomen began gradually to diminish, and at the eighth and ninth months was scarcely more prominent than ordinary. Still, a foreign body could, at times, be perceived through the parietes of the abdomen and uterus. The breasts also were distended, and there were occasional oozings of milk, though after the beginning of the ninth month, there was an evident diminution in the size and fulness of the former, and an almost entire interruption to the flow of the latter. The general health remained perfectly good. At the close of the ordinary period of utero-gestation without pain, or any uncommon efforts, the distended membranes were found slightly protruding from the vagina—pains resembling cramp succeeded, and subsequently alarming hæmorrhage. Enveloped in the unbroken membranes, was a fœtus apparently of five months, which, upon delivery, was found free from any marks of decomposition. The placenta, which followed spontaneously, was in a morbid condition, being larger than ordinary, and resembling in form and consistence a sarcomatous tumour. At the usual period after delivery, milk was secreted in large quantity, and recovery was rapid and complete.

It is maintained by most respectable writers on medical jurisprudence, that decomposition and expulsion of the fœtus must speedily follow the extinction of the vital principle. Beck, in discussing the point when life commences, has these words: "The fœtus, previous to quickening, must be either dead or alive. Now, that it is not the former, is most evident, from neither decomposition nor putrefaction having taken place, which would be the inevitable consequence of an extinction of the vital princi-

ple. To say that the connexion with the mother prevents this, is wholly untenable—facts are opposed to it." Cases may arise when it is important that an opposite opinion should prevail, especially as it seems founded in truth. To the physician also, consulted as to the existence of pregnancy, a knowledge of cases like the present may be valuable.

According to the principles of chemistry, air, moisture, and a certain range of temperature, are essential to putrefaction. If this be strictly true, we need be in no doubt how to account for the apparent anomaly in the present instance; for so long as the membranes remain entire, atmospheric air can find no entrance to the fœtus in utero. Should we be asked for proof that it will not produce its appropriate effects, acting through the fœtal membranes, in the same manner as venous blood is decarbonized in the lungs, or when exposed in a moistened bladder to a jar of oxygen, we would reply, that it is incumbent on the objector to show the permeability of such membranes to atmospheric air, and would ask in rejoinder, why were not those effects produced in the present instance?

But it may be said, that the elements entering into the chemical composition of the fœtus, may be so arranged as that they shall, when life becomes extinct, mutually attract each other, and thus decomposition be effected without any extrinsic influence. It is granted that this tendency to spontaneous putrefaction exists in certain combinations, and varies with the relative proportion of certain constituents; it being particularly strong whenever oxygen and hydrogen exist in the proportions to form water. But this is far from being true of the elements of gelatine and albumen, proximate principles of which the young of all animals are chiefly composed; and it is well known how little in their concrete state these articles are disposed to putrefaction.

Two objections to this view of the case may arise. One is, that the fœtus was actually expelled, soon after life became extinct, an error having occurred as to the existence of pregnancy: and the other—that, owing to the morbid condition of the placenta, its functions were so much weakened, that although sufficient to prolong vital action in the fœtus, yet it was inadequate to its customary nutrition and growth.

In answer to the first, it is sufficient to say, that, supposing the objection well founded, all the legitimate signs of pregnancy existed before the condition had actually occurred, and, during its existence, were constantly diminishing. In reply to the second, it may be said that every appearance of the fœtus would contradict such an opinion, it resembling in every respect the description applied by the authorities to one of five months, and confirmed by the writer's experience.

It may be mentioned, as a striking coincidence, that eight cases of abortion have come to the knowledge of the writer, which occurred during the month within which the death of the fœtus, in the case detailed, is supposed to have taken place, and all in this immediate neighbourhood. In these cases there was incipient putrefaction at the time the fœtus was expelled. The influence of atmospheric changes in producing abortion, has been noticed since the age of Hippocrates, who affirms that "a warm winter, accompanied with rains and south winds, and succeeded by a cold and dry spring, causes abortions very readily in those females who are to be delivered in the spring." While the unusual severity of the past winter will not enable us fully to confirm these observations, there are, doubtless, peculiar seasons when, from certain unknown cases, the death of the fœtus occurs as if by an epidemic.—*American Journal of the Medical Sciences.*

THE DESCRIPTION OF AN INVENTION DEVOTED TO THE PRESERVATION OF THE WOUNDED WARRIOR.

To the Editor of the London Medical and Surgical Journal.

SIR—I have the honour to submit to you, for publication in your valuable Journal, a description of an invention devoted to the preservation of the Wounded Warrior. In all the combinations of this Ambulatory Operating Theatre, utility and humanity have been aimed at, because its author has personally witnessed and mingled in the miseries and triumphs of war. It carries no Congreve rockets nor Shrapnell shells in its composition, but in spite of this, it possesses powers calculated to eagerly attract the notice of the gallant, the enlightened, and generous warrior and lover of his country, whose object, the day being decided, is to relieve human suffering, and thereby gather laurels as imperishable as the fame resulting from the field of battle.

This apparatus was constructed with the view, as observed, to save and to diminish as far as possible the sufferings of those who are destined in times to come to uphold the already splendid achievements of the army and navy, whose combined efforts have invariably laid in the dust their country's enemies. The army having been the first to encourage this invention, it is therefore inscribed to the illustrious Duke of Wellington and his brave companions, and all who may aspire to their glorious and immortal deeds—in short, to the British army in all quarters of the world; and should this machine be adopted by the navy, for which service it was originally constructed, and offered in the first instance as a matter of honour and duty, that application of the apparatus will bear an inscription, com-

memorative of the achievements of our country's best bulwark, as well as the source of her prosperity and greatness.

I have the honour to be
Your obedient humble servant,
JAMES VEITCH, M.D.

26 *Cadogan Place, London, June 6th*, 1836.

This apparatus consists of an operating table with a flap attached thereunto. The solid table is three feet four inches in length, two in breadth, to which there is affixed an inclined plane to raise and support the shoulders of the patient when necessary. The flap is two feet six inches in length, and of the same breadth as the table, and when required is supported by a movable beam which can be promptly projected from underneath the table. The table is two feet eleven inches in height. Under the body of the table and in the centre there is a square box of sixteen inches in all directions, with four exterior and lateral divisions of two inches in breadth each, sixteen in length, and eight in depth, for receiving the cases of amputating, trepanning, miscellaneous and cupping instruments, and are exteriorly so marked. When amputation of the thigh or any other extremity is required, the necessary instruments are laid out on the inside of the cover of the box just adverted to, beginning with the letter nearest the limb to be removed. The first instrument wanted, to be placed opposite A, and the second opposite B, and so on according to the order in which they are required in the course of the operation, by which means the very painful and afflicting circumstance of calling for instruments is altogether avoided. If a shoulder is to be removed the same arrangements are to be adopted as in the amputation of a thigh, with the difference of placing the instruments at the head instead of the lower extremity of the table. The divisions in the centre are intended to receive bandages of six yards, of five, of four, and three yards in length, and three inches in breadth, and they are capable of giving accommodation to about two hundred bandages of the description noticed. The drawers in front marked Ligatures, are intended to keep these essential agents of surgery in constant readiness. The drawers marked Slips of Adhesive Plaister, indicate the propriety of these being at all times in readiness for operations and wounds. The compartment marked Fractures, is for keeping the splints and bandages necessary for the cure of such accidents in a constant state of readiness. The compartment marked Dislocations, indicates that all instruments required for the reduction of dislocations are there to be found, in a state of preparation. With these arrangements the surgeon can never be taken by surprise, and is consequently always in a condition to remedy the effects of wounds and accidents, however dangerous, and thereby to obviate their fatal tendency, even without a regular surgical assistant. This invention is portable as a whole, but its parts admit of being separated and removed to any point where the whole may not be required. With the above apparatus, no man, however dangerously wounded, ought to be despaired of, because every thing requisite can be readily found in its place, and there is a place for every thing required on the day of battle. It would also be advisable to have brass rods on which to hang lamps, constantly fixed in the deck in the centre of the cockpit, and directly over the place appointed to the Operating Theatre in time of action. It could be carried by poles like a sedan chair to any point where it may be wanted, and this plan would be advisable even on board of ships of war; but where greater velocity is demanded, as in the field of battle, a neat spring cart with a box affixed thereunto, of its exact dimensions, could be kept in constant readiness; by which arrangement, and aided by a single horse, it could be conveyed, the surgeon accompanying with much speed to the assistance of the wounded.

This apparatus, besides its applicability to the army and navy, promises the greatest advantages in hospital as well as private practice. Noblemen and gentlemen keeping a large retinue, manufactories, hunting establisments, would find in this invention a source of security, as at all such places valuable lives are often unnecessarily sacrificed when accidents occur, in consequence of the requisite instruments either not being in a state of readiness, or at such a distance as to give rise to delay, and that delay to death. It would also form an admirable depôt for the keeping of instruments of every kind in a high state of preservation. No one can dine or breakfast with ease at a table that is either too high, too low, or too broad; and to perform an important operation on the living body, with skill, delicacy, and dexterity, so as to inflict the least degree of pain, becomes utterly impossible under such defects. When the table for operations is fixed to a bulkhead, which prevents the surgeon moving round his patients, these defects become more severely felt. In private practice, in searching for a table on which to operate, delay often arises as well as misery to the family, and suffering to the patient, far beyond the pain of the operation itself; which evils will all be obviated by this invention, because it can be conveyed with the instruments previously arranged, to the house where the operation is to be performed. This apparatus, once placed in the field of battle, the cockpit, or in a private room, the surgeon is prepared to do his duty.

All Communications and Books for Review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster Abbey; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

MANCHESTER ROYAL INFIRMARY

THE

London Medical and Surgical Journal.

No. 26. SATURDAY, JULY 23. Vol. I.—(1836).

PATHOLOGICAL OBSERVATIONS ON THE DISEASES OF THE PLACENTA.

Congestion and Inflammation.

BY JAMES Y. SIMPSON, M.D.,
President of the Royal Medical Society of Edinburgh, &c.

(*Read before the Royal Medical Society, November* 20, 1835.)

INFLAMMATION OF THE PLACENTA.

(*Concluded from p.* 776.)

Danger of Placentitis to the Mother.—The morbid inflammatory adhesion of the placenta to the uterus, just now alluded to, is not unfrequently attended with great danger to the mother at the time of delivery, or subsequently to that event, from the extreme hemorrage to which it sometimes gives rise, from its leading, under unskilful management, to inversion of the uterus, or afterwards from its retention producing, as it so frequently does, a very fatal form of irritative fever. As illustrative of the frequency, and, at the same time, of the danger liable to result to the mother from the consequence of the placentary inflammation, I may remark, that, from the annual reports of the Royal Maternity Charity of London, in the years 1828-29-30 and 31, published by Dr. Francis Ramsbotham, in the 3d, 5th, 7th, and 9th volumes of the Medical Gazette, it appears that during the above period, 8967 women were delivered in the district of the Charity which is under Dr. Ramsbotham's more immediate care. Out of these 8967 cases, there were 67, or nearly one in every 134, in which the placenta required the introduction of the hand for its removal, either on account of its being morbidly adherent to the uterus, or from its being retained by the atony or irregular contractions of this organ*; 45 out of the 8967 women delivered, or nearly one out of every 199 died, and 13 out of these 45 deaths, or about one third and a half of the whole, were directly attributable to the effects resulting from morbid adhesion of the placenta;—in other words, one woman out of every 689 that were delivered perished in consequence of this single consequence or termination of placentary inflammation.

But besides the fatality occasioned by this single termination of placental inflammation subsequently to the expulsion of the child, inflammation of this organ sometimes proves a source of danger to the mother during the progress of pregnancy, by producing in her a state of general bad health, or by giving rise to abortion or premature labour.

Thus, out of the twenty cases of placental inflammation, to which I have so frequently adverted, abortion occurred in one (17) at the the third month, in a second (18) between the third and fourth, in a third (19) at the fourth, in two (11, 18.) at the sixth, and premature delivery in one (20) at the eighth, and in another (13) at the eight and a half month of utero-gestation. In several of the remaining cases, the time of utero-gestation at which labour came on is not mentioned, but in most of them the placental inflammation was of a subacute or chronic character,

* It does not appear from Dr. Ramsbotham's tables in how many out of these 67 cases the placenta was actually retained by morbid adhesions with the uterus, and in what proportion other causes acted in producing that result. I have not been able to find any sufficiently extensive series of obstetrical observations, by which to judge of the usual average number of cases in which the placenta becomes morbidly adherent to the uterus, but I am inclined to think that the ratio given in Dr. Ramsbotham's tables is considerably higher than usual, owing probably to the patients applying to the Dispensary belonging to a rank of life in which they are exposed to many of the exciting causes of placentary inflammation. Adhesion of the placenta to the uterus being only one of the effects of placentitis, and commonly of placentitis in a chronic form, it would be impossible to judge from the frequency of utero-placental adhesion alone of the frequency of placentary inflammation in general.

and the patient seems generally to have gone on to the full period of pregnancy, and even, it is stated in two cases (10, 14,) some days beyond that period. From the former cases, however, and from all that I have observed, I am convinced that placentary inflammation will be found to be a much more frequent cause of abortion and of ill health to the mother during pregnancy, than seems at present to be at all suspected. It is known as a general observation among obstetrical practitioners, that, in cases of abortion, the placenta is not unfrequently retained in the uterus for days or even for weeks after the fœtus is expelled. Does this retention depend in some of these instances upon inflammation having taken place in the placenta, or in the contiguous surface of the uterus, and produced a morbid degree of adhesion between these two organs ?

Effects of Placentitis on the Fœtus.—Placentary inflammation occasionallyproves fatal to the fœtus in utero. Professor Wilde, in his brief enumeration of the symptoms of this disease, mentions as one, that the motions of the child gradually become weaker, and at last cease altogether, a circumstance observed in two of M. Brachet's cases (10, 14,) and in those previously quoted from Mauriceau. (Obs. 241 and 283.) Out of the eight cases of placental inflammation given by M. Brachet, in one (16) the state of the infant is not adverted to ; in three the children were dead born, viz. in the two cases (10, 14,) to which I have just alluded ; and in a third instance of twins* one child was dead and beginning to putrefy, and the whole substance of the placenta corresponding to it was in the second stage of inflammation. The second child and placenta were healthy. Of the other four cases of placentitis mentioned by Brachet, in one (11) the child was lively but died thirty hours after birth, and in all the other three, (12, 13, 15,) the infants were feeble and excessively pale, wan, and lean ; one of them died in a few days after birth ; the other two survived.

The placenta being apparently directly subservient both to the respiration and nutrition of the fœtus, performing for it at once the functions of the lungs and of the stomach, or perhaps more properly of the mouth, during the greater part of its intra-uterine life, it is not wonderful that chronic inflammatory disease of this organ, by more or less completely arresting or impeding the performance of these functions, should sometimes destroy the life of the child, and in other instances produce in it that state of phthisical marasmus (if we may so term it) which the three infants, mentioned by M. Brachet, exhibited. That the state of these infants was really dependent, not upon any pathological condition in their own economy, but only upon the morbid condition of the placenta, and the mal-performance of its functions, was proved on the other hand, by no anormal or morbid lesion being discovered upon a careful post mortem inspection in two of the fatal cases, and, on the other hand, by two of those infants that were born alive rapidly gaining plumpness and strength, when transferred to the care of a good nurse. The above were instances in which the inflammation of the placenta had been chronic, and the disorganization it produced consequently slow in its progress, and more or less of the organ had been left in a state fit to perform its functions. Where the inflammatory action is more acute in its nature, or more general in its extent, the fœtus may be killed by it more rapidly, and before its state of nourishment is affected. This appears to have happened in M. Brachet's fifth case (13) where at the $8\frac{1}{2}$ month of utero-gestation, the child was born dead and putrid, but of large size and sufficient weight. Three-fourths of the placenta, as I have already stated, were occupied by a large abscess, which the history of the case shews to have been of comparatively recent formation.

There is one other series of effects produced by placentary inflammation, or at least, by inflammation of the membranes covering the external surface of the placenta upon the fœtus, which I regret that the already too extended limits of this essay will allow me merely to allude to—I mean the morbid connexion of the internal surface of this organ, by adhesive inflammation with some part of the body of the fœtus, and the production, in consequence of that connexion, of different forms of malformation by displacement and arrestment of development, in more or fewer of the fœtal viscera and members.

Paul Portal, in his work on the practice of Midwifery*, has given the first, and among the older authors, the only distinct instance which I have been able to find of this variety of monstrosity† ; but since the beginning of

* Journal General, cii. p. 11, 12

* La Pratique des Accouchemens, p. 192-199, 1685. Two figures of the child and placenta are given.

† Dr. Thomson has pointed out to me an instance of monstrosity figured in the Ephemer. Nat. Curios. for 1673, p. 166, by Lachmund, as in all probability an example of the morbid attachment of the placenta to the head of the child, but the description given of the case is very indistinct. In the works of the older writers on monstrosities, as in those of Lycosthenes, Licetus, Aldrovandri, &c., I have not found any instance of malformation, in which it is distinctlystated that the placenta was connected by morbid adhesions to the fœtus in the manner mentioned in the text, but it is probable that some of the instances of torn membranes, occasionally described by these authors as

the present century, eight cases at least have been published by different authors, of malformed fœtuses born with the fœtal surface of the placenta more or less intimately connected by morbid adhesions with their head and face. The first of these cases was published by Dr Poole* of London, the second Mr. Cam† of Bath, the third by Necati‡, a fourth, first recorded by Duchateau§, and afterwards minutely and ably described by Geoffroy St Hilaire‖, a fifth by Breschet¶, three by Charles Rudolphi**, and the last and eighth by Lauray††. Besides these nine published cases, I may mention, that I have myself had an opportunity of examining three additional specimens of this curious species of monstrosity, one in the Museum of Guy's Hospital, a second in that of the London University, and a third in the anatomical collection belonging to the London College of Physicians.

Within these few years several other cases have been put upon record of malformed fœtuses born with the placenta adhering either directly or by means of a connecting membrane to the parietes of the unclosed abdomen of the fœtus, or to its extroverted abdominal viscera. Dr. Poole.‡‡ in the short paper already referred to, mentions having seen a case of this kind; Mr. Hill§§ has recorded what appears to be a second similar instance; in 1817, a third was shown to the Society of Medicine by Chaussier*; and three additional cases have been more lately described by Dr. Knox†, Professor Henot ‡, and Dr. Montgomery §. Of this variety of malformation and morbid placental adhesion, I have seen five instances —two of them in the London University Museum, one in the Museum of Dr. Blundell, another in that of Mr. Langstaff, and the fifth in the collection of M. Dupont at Paris.

I am not aware of any cases of attachment of the fœtal membranes to the head among monstrosities in the lower animals, but Professor Gurlt of Berlin ‖ has described several cases in which these membranes were attached to the abdomen of different animals, and he has delineated three instances of it in his plates, in the calf, lamb, and kid; Tab. vi. 2 and 3, and Tab. vii. 1. In all these cases the spines and bodies of the animals were much contorted, as is generally the case also with this kind of malformation in the human subject. In four out of the five instances which I have seen in the human fœtus, the trunk was more or less completely doubled backwards or laterally upon itself, and in three of the cases one of the sides of the body was less perfectly developed than the other ¶.

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attached to the heads of malformed infants, and fancifully supposed by them to resemble the ears of the lower animals, &c., were the remains of ruptured placentary adhesions. An instance of monstrosity quoted from Fincelius by the younger Schenkius, (see his Monstrorum Historia Memorabilis, 1609, p. 8-9,) was perhaps an example of the attachment of the placenta to the head of the fœtus, "Habuit ille in vertice massam carnis, imaginem præbens testudinis rufae; in cervice caudam carnosam habuit instar muris, sed abescentem, qualis erat cutis sine pilis, capite erat Thersitico, oculis extantibus."

* London Medical and Physical Journal, Vol. iii. p. 397 and 497. 1800.

† Ibid, Vol. vii. p. 385. 1802.

‡ Specim. Anat. Pathol. de Labii Leporini Congeniti natura et origine. Amsterdam, (1822.)

§ Journal Complementaire des Sc. Medicales. Tome viii. p. 377-8. 1820.

‖ Anatomie Philosophique, Tome ii. Monstruosities, p. 151-221. 1822.

¶ Repertoire d'Anatomie, &c. Tome ii. p. 288. 1826.

** Monstrorum Trium cum Secundinis Coalitorum. Berlin, 1829.

†† Bibliotheque Medicale, (1829) Tome ii. p. 288.

‡‡ Lond. Med. and Phy. Journ. Vol. iii. p. 399.

§§ Ibid, Vol. xxiv. p. 61. 1810.

* Bulletins de la Faculté, &c. Tome v. p. 310. 1817.

† Edinburgh Journal of Medical Science, Vol. i. p. 343. 1826.

‡ Archives Generales de Medecine, Tome xxii. p. 313. 1830.

§ Dublin Medical Transactions, New Series, Vol. i. p. 375. 1833.

‖ Lehrbuch der Pathologischen Anatomie der Haus-Säugethiere, Bd. ii. s. 99-143.

¶ I had some time ago presented to me a delineation and short description of an anencephalous human fœtus, to which both of these last remarks strongly apply. I regret that the imperfect history which I have received of this case, does not enable me to state positively if the sides of the large opening in the anterior part of the body, through which almost all the abdominal and thoracic viscera protrude, stretched onwards in a membranous form to the placenta or not; but this interesting monstrosity resembles so exactly some of the other instances that I have seen in which this membranous placentary connection existed, that I have little doubt that such was the nature also of the present case. The trunk of this fœtus is doubled back to such a degree that the occiput nearly touches the lower part of the dorsal spine, to which it is connected by a short web of integument. The spinal column, at the same time that it is thus made to project forwards, is curved also towards the left side, so as nearly to form a semicircle. The ribs on this side are merely rudimentary,

If this were a fit opportunity, it would be easy, I conceive, to point out some very striking points of analogy in external figure and internal anatomical structure between the different individuals belonging to these two classes of malformations, and I am further persuaded that, by a study of these analogies, many of the cases of monstrosity, particularly of strongly marked malformations of the head and face, of defective conjunctions in the median line of the body, and of extroversions of the encephalic, thoracic, and abdominal viscera, that are to be found upon the records of medicine, might be shown to be equally referable, in the first instance, to the existence of morbid adhesions of the embryo to the placenta or membranes of the ovum, as their more immediate determining cause, although such adhesions were not observed at the time of birth, from the connecting and often tender bands or membranes of which they generally consist, having been in some instances ruptured in the act of parturition, and in others destroyed during the course of intra-uterine life, the solutions of continuity which they had left upon the body of the fœtus having become before birth more or less completely cicatrized and obliterated.

Treatment of Placental Congestion and Inflammation.—I shall not lengthen out the present part of my paper by obtruding upon the Society any very detailed remarks upon the prevention and treatment of placentary congestion and inflammation, for on these subjects I have indeed little novel to offer, and few or no modes of practice to inculcate beyond those that are generally acted upon in the daily attempts that are made to alleviate and remove the several individual symptoms and combinations of symptoms occurring in the state of pregnancy that I have had occasion to particularize in the course of the preceding observations. The more accurate pathological investigation of the nature of any disease has very seldom led in a direct manner to the development of any new methods of practice in its treatment, and hence, amid the many and strange revolutions to which medical theory has been subjected, it is singular in the retrospect to remark, how comparatively stationary a number of the leading principles of medical treatment in different affections have at all times remained. But though general and anatomical pathology has not, in the great advances which it has now made, more especially in modern times, led, with some very few exceptions, to the suggestion of any actually new remedial measures, yet, assisted by clinical observation, it has confessedly, imperfect as it still is, proved already of incalculable advantage to practical medicine, in having enabled us to generalize more accurately than before our knowledge and practical application of the ample store of therapeutic agents that we already possess, by, in the first place, affording us data to generalize upon the identity of morbid actions and morbid effects in different organs of the body; it has enabled us in many of the complicated diseased conditions of the human economy to detect the true causal relations in which various forms of morbid states and symptoms, coexisting in different and distant parts of this economy stand to one another—to distinguish affections that are primary from those that are merely their secondary and sympathetic effects—to fix upon the individual organ that forms the primitive seat of diseased action, and which, consequently, ought to constitute the main point and object against which all our remedial measures should be, directly or indirectly, aimed; and besides, modern pathology, in a few remarkable instances, has afforded us important clues, that have served as guides by which we have traced back confirmed morbid states and lesions from their more advanced and more incurable stages to their earliest commencements; and further, it has, in some of these instances, shown us that the morbid actions of which they consist at these, their first periods of development, are such as can often be detected by a cautious and careful use of the improved means of diagnosis which it has placed in our power, and, at the same time, be made the subject of a rational and successful medical treatment.

General blood-letting, repeated or not, according to circumstances, along with more or fewer other antiphlogistic measures, has been long successfully employed by medical men, to subdue the various symptoms direct and sympathetic, local and constitutional, that I have endeavoured in the preceding pages to trace to congestion and inflammation of the placenta as their immediate or proximate cause; and the inquiry into which I have entered is, I trust, calculated to show in a clear light, the value and rational character of this practice, upon the general principle of applying to the diseases of this organ the same remedial measures that have been found, by observation and experience, to be best fitted for combating congestive and inflammatory morbid actions in other parts of the body. Upon this general ground also it would seem not unreasonable to anticipate, that, in the preventive treatment of some of the more common forms of abortion, and of the other local effects and symptoms of placental congestion and inflammation, as well as in the treatment of those various but more remotely situated sympathetic and constitutional affections to which these two

consisting only of a few cartilaginous stumps. The ribs, again, on the right side are long, and form a broad flat thoracic surface. This fœtus was the product of a premature labour, as the monstrosities of this class have almost always been.

morbid states of the placenta, but particularly its state of inflammation, so frequently appears to give rise—an active employment of leeching or other local depletory and sedative measures may be attended with highly beneficial results, and be advantageously followed up, if the nature of the case or the obstinacy of the symptoms require it, by blisters and counter-irritation in the neighbourhood of the region of the uterus, as has indeed been already recommended to us by some American practitioners, in the management of cases of threatened abortion*. The kind of inquiry into which I have been led may also, I hope, prove ultimately useful, in showing that a large part of the great sacrifice of human life that is constantly occurring from the death of the fœtus, and from the act of abortion to which the death gives rise, primarily depends upon morbid actions originating and seated in the placenta, and that in many instances these actions are in themselves of such a pathological nature as are generally considered to be amenable to medical treatment. And further, if the view which I have taken of the pathological nature of the adherent placenta be correct, namely, that it is the result of a state of inflammatory action in that organ, generally of a chronic character, or, as I ought, perhaps, more properly to say, of a state of adhesive inflammation in the contiguous surfaces of the placenta and of the uterus, it seems reasonable to expect that we may, by watching more diligently for the first symptoms and advances of this inflammation, be then able to arrest, by the employment of such measures as those above referred to, the morbid action in its earlier stages, and thus avert, or at least diminish, what, as I have already endeavoured to show, ultimately proves one of the principal sources of danger and fatality to the parturient female, and constitutes altogether a case, than which (as Dr. Ramsbotham has justly remarked) "there is scarcely one in the whole circle of practical midwifery more pregnant with immediate and impending mischief*." The above remarks on the early detection and on the early and active treatment of placental inflammation are only, if possible, more strongly applicable to the management of the cases referred to at a previous part of the paper, in which placental inflammation shows a tendency to recur in different pregnancies in the same woman. But, indeed, under all circumstances, and in all instances, in employing in the treatment of placentary inflammation and congestion, more or fewer of the various general therapeutic means above alluded to, and such other remedial measures, medicinal, dietetic, and regiminal, as the peculiarities of individual cases, are in the practice of our profession, constantly found to require, we ought ever to be guided and stimulated by the consideration, that on the activity and success of our exertions are dependent not only the present well-being and future safety of the mother, but the health also, and, it may be, the life of her infant in utero.

* See Jackson, American Journal of the Med. Sciences, No. iv. p. 299; and Cenas, in Ib. No. x. p. 547.

* Out of the nine cases of adherent placenta extracted in a preceding page from Dr. Ramsbotham's work, in two (2, 4) the mothers died, one (2) in eight hours, and the other (4) in three hours after the birth of the child. A third patient (1) out of the nine died nine days after delivery, but apparently not at all in consequence of the previous adhesion of the placenta or its effects. If we keep this last case entirely out of the calculation, it appears that, out of twenty-three cases in all of adherent placenta, described by this author (Pract. Observ. p. 98, 141), in nine of the instances the women died, seven of them from hemorrhage, and exhaustion, at intervals varying from one hour and a half to eight hours after delivery; one from inversion of the uterus, apparently the course of two or three hours; and the remaining ninth patient survived till the fifth day, when she sunk under symptoms of reaction and fever.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXV.

Ovology of Mammiferæ.

The history of ovology in quadrupeds deserves especial attention, as it affords a close, if not a perfect analogy to that of the human species. It was thus described by Harvey.

He found signs of the embryo in stags on the eighth or ninth of November, that had copulated six or seven days previously. The date of his observations was in 1633. He observed that the white caruncles in the horns of the womb were flaccid and not so protuberant as usual, but corrugated and moistened. About the time specified, there were in the middle of each horn, and also in the cavity of the uterus, some mucous filaments, like frog spawn, and especially at the superior and extreme angle of the horn, which, when joined together, formed a membranous and mucilaginous tunic. This tunic, like the choroid plexus in the brain, formed a long sac which extended over the whole cavity of the womb and its horns.

In a day or two afterwards this membrane is filled with a white, watery, thin, and albugineous matter. It is loosely attached to the womb, and is easily separated from it. On separating this sac from the womb, its external surface is rough, its internal smooth and polished, and contains a thin fluid not unlike the white of eggs. This is the first conception. In many examinations of the uterus of the deer a month after copulation, there was not a vestige of the embryo; but about the eighteenth, or, at latest, the twenty-first of November, the transparent crystalline matter was detected, similar to that in the gallinaceous egg, in the middle of which, sanguineous fibres (blood-vessels) and a punctum saliens were clearly discerned; and this is the first rudiment of the embryo: "Estque hæc prima pars genitalis."

A similar conformation exists in the conceptions of all viviparous animals.

The external layer of the sac surrounding the ovum is called *chorion*, the internal *amnios;* nor are there more than these two. This membrane surrounds the embryo, and extends into each horn of the womb, unless in cases of twins, of which each has its own sac, or both are in one common tunic.

The vein which is seen in the crystalline humour in the amnios takes its origin from the punctum saliens (the heart), and passess to form the umbilical vessels, ramifies on the chorion, so that we observe the fœtus in the earliest period of its existence deriving its nutriment entirely from the colliquamentum (or amnios.)

"I exhibited," says our illustrious physiologist, "the punctum in a dissected uterus, while palpitating, to his most serene Majesty, and it was so small that it could only be discerned with a microscope."

In the following days, the embryo is divided into two parts, the head and trunk, in the same manner as that in the gallinaceous egg, as already described. The spine is curved, and the eyes are visible, but are much larger in oviparous than in viviparous animals.

After the twenty-sixth day of November the body of the fœtus is perfectly formed, and is found in either the right or left horn of the womb: in twins there is one in each horn. At this period it is easy to distinguish the male from the female genitals. The male and female may be situated either in the right or left horn. "I have, however, more frequently observed the female in the right, and the male in the left, and most frequently when there were twins." It is certain that we cannot distinguish or predict the sex from the side in which the fœtus is placed. "For neither is the uterus the fabricator or maker of the fœtus, nor the mother herself, more than the hen that in the egg which she incubates. For even as the pullet, by an internal action and formative power is fabricated in the egg, so is the fœtus formed in the ovum of the deer."

Some will wonder at the very short period of time from the commencement of the punctum saliens and blood, that the fœtus can be formed and perfected in the amnios. But we observe this salient point about the nineteenth or twentieth of November; and about the twenty-first or twenty-second, a little imperfect worm is discerned; but in six or seven days later

the fœtus is so perfect that the sex, feet, and sulcated hooves may be plainly seen.

As soon as the embryo is formed and begins to develop, the substance of the uterus commences to extenuate; while in woman, as the fœtus increases, the uterus becomes thicker and more fleshy. The fœtus of the deer is not as yet adherent to the womb, and is entirely nourished by the albumen or fluid in the amnios, in the same manner as in the gallinaceous egg. The mouths of the umbilical veins are obliterated in the albumen, fluids, and tunics of the conception: but they are never as yet attached to the uterus, so that nourishment is supplied to the fœtus by these veins alone. The roots of the veins, as in the egg, are spread over the colliquamentum or amnios, or like the roots of plants in the earth, and afterwards they extend to the external tunic called chorion, and ramify to an indefinite extent for the purpose of supplying nutriment. Thus I have also observed in human abortions the veins in the chorion, and Aristotle has likewise attested this fact (Hist. Anim. l. 7, c. 71.) If there was but one fœtus, the distribution of its umbilical vessels extended to each horn, and certain branches communicated with the cavity of the uterus. But when two fœtuses exist, there is one in each horn; the vessels of each are disseminated in the horn in which it is placed.

Towards the end of November all parts of the fœtus are clearly and distinctly seen, and it now appears the size of a bean or a small nutmeg; the occiput being prominent, as in the chick, and the eyes comparatively smaller. The mouth is seen gaping from ear to ear, as the cheeks, lips, and skin are perfected at a later period. "In all fœtuses, even in the human, a little before birth, I say that gaping of the mouth, without lips or cheeks, extends from ear to ear. It is for this reason, unless I am in error, that many are born with fissures of the upper lip (harelip), because in the development of the human fœtus the superior lips coalesce tardily*."

The fœtus, about the size of a large bean, floating in its transparent nutriment in the amnios, was frequently placed in a silver vessel filled with limpid water, and I observed the following particulars:—The brain, somewhat thicker than the white of an egg, or like moderately coagulated milk, of a rude form, without calvaria, is contained between its ambient membrane. The cerebellum projects into a point, as in the fœtal chicken. The cone of the heart is white, and all the other viscera, even the liver, are of the same colour. The trunk of the umbilical vein arises from the heart, passes to the liver, and enters the trunk of the vena porta; it there advances, divides into different branches, and is diffused through the colliquamentum (amnios), and then through the chorion, in innumerable ramifications. The sides ascend on each side from the spine, the thorax, like a boat, containing the heart and lungs, is also developed, the rest is perfected as in the chick, in the manner already described. The heart, intestines, and all the other viscera are distinctly seen, and appear as appendices of the body, until closed by the parietes or coverings of the chest or abdomen. At this period all the organs are white and soft, and seem to be of the same structure, except that at the interior of the chest there are white lines, which are the rudiments of the ribs. In some the head was depressed almost to the tail, and the body was rounded into an oval shape. Though twins were observed, one in each horn of the womb, they were contained in the same amnios, and floated in the fluid in this membrane. The mouth was large, the eyes small, contrary to the

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* This statement is inexact, for the lips of the human fœtus are perfected long before the time of parturition. It is however true, that there is gaping in the early months of uterine gestation.

usual appearances in all kinds of birds. The exterior membrane or chorion adhered but very slightly to the uterus, so that the whole conception might be removed with facility. There are numerous ramifications on the chorion, but those are not connected with the uterus, but appear like those in the membrane of the gallinaceous egg, as already described. The chorion is extended into each horn, and is full of a more turbid fluid, which may deform the fœtus: but the amniotic membrane, which is almost invisible, somewhat similar to the arachnoid, contains a crystalline fluid in which the fœtus floats. The fluid between the chorion and amnios is about a hundredth part in proportion to that in the amnios, and appears like milk and water. The surface of the uterus, over which the fœtus is loosely attached, has its caruncles enlarged and vascular, but the umbilical veins do not enter these, nor does the conception itself adhere to the uterus. I did not find an allantois distinct from the chorion, but an enlargement of the latter at certain points of it.

"The human conception in the first months of gestation scarcely differs from that of the gallinaceous egg. I have seen before the development of the placenta, a white humour similar to a thinner fluid than white of egg, and equal in magnitude to a pigeon's or pheasant's egg, contained in a fine membrane, in which the embryo was visible, about the size of the nail of the little finger, like a tad-pole; the body being broad, the mouth open, the superior and inferior extremities protruded, the occiput being prominent, or resembling a small bladder attached to the rest of the head, such as I described that of the chicken to be.

"Another human embryo, aged about fifty days, was the size of a hen's egg. The embryo was about the size of a large bean—the brain was of the consistence of coagulated milk—the cerebellum was prominent. There were no ears or nose; and the trachea and auricles of the heart were distinguished.

"All human conceptions, like other ova, were at this period rough in their external surface, and as if coated with jelly or gluten. No placenta or connexion with the womb was apparent, nor were the umbilical vessels inserted into the uterus. Although two or several fœtuses are formed in deers in one set of membrane, like twin chickens in eggs, the same exists in sheep, goats, and all other animals with bisulcated hooves; but the development is different in bitches, rabbits, sows, and all other viviparous and multiparous animals, in which each fœtus possesses its own membranes and their double fluids.

"There are various nodes or elevations in the whole horn in bitches, in which the same fluids are contained, and in each of which there is a fœtus. In hares and rabbits there are several globules like the chaplets of eggs in serpents, as if strung together on thread. The conception of the hare is like a chestnut; the placenta embraces it like a cup, and the fluids are contained in tunics or sacs." (Exercit. lxix.)

In the beginning of December the fœtus is enlarged and more perfect. The heart and other viscera are no longer pendent externally, and are hidden in the cavities of the body. The caruncles on the uterus near the surface of the chorion become more vascular, prominent, rough, and viscous, as if an adhesion or conjunction might be made by this viscous or tenacious matter. These caruncles are like small fungi or warts, are not annexed to the conception, supply the place of the placenta in woman, and perform its functions, and supply nutriment to the umbilical vessels.

The size and capacity of the uterus and its horns increases with the development of the fœtus, and the horn is larger in which the fœtus is lodged. The conception is entire, whether there be one or many fœtuses. The ovum extends into each horn, or rather the membranes which envelop it, and these are constricted in the middle, and proceed from the horn on each side into the cavity of the uterus. The whole conception is a sac constricted in the middle, and filled with fluid in each side.

On dissecting the embryo at this age, all the viscera are found distinct and perfect—the stomach, intestines, heart, kidneys, and lungs, which are divided into lobes. The colour of the last-named organs is redder than after respiration, as the air dilates the lungs, and renders them of a white colour. It is easy to know by this sign whether a mother brought forth a living or dead fœtus; as the colour of the lungs is permanently changed by the inspiration of the air*.

The testes are situated under the kidneys, as also the ovaries, which are placed at the extremities of the cornua or horns of the womb.

There is a watery fluid in the stomach, not unlike that in which the fœtus swims, but it is more turbid than the latter. The same whitish fluid abounds in the superior part of the intestines, and is chyle. Excrementitious, greenish, and scybalous matter begin to appear in the colon.

The urachus is now imperforate, nor does it differ from the allantois, which is said to contain the urine, or from the chorion; nor is the urine in the secundines, but abundantly in the bladder. The bladder is oblong, and situated between the umbilical arteries and the great descending branches. The liver is large, rude in form, and reddish. The convolutions of the brain are not marked, the eyes are hidden in their sockets, and the eyelids sometimes shut, as in dogs, or are so closed that it is difficult to open them. The bones of the cheek and ribs become harder, and the muscles firmer and redder.

It appears, from numerous dissections made in this month, that the caruncles perform the office of the placenta; they are now red, turgid, and the size of a walnut. The conception, which previously adhered to them by a kind of mucus, now inserts the roots of the umbilical vessels into them, as plants do their roots into the earth, by which it is agglutinated, and attached to the uterus.

Towards the end of December, we see the fœtus about the length of a span, rapidly moving and kicking. It opens and closes its mouth. On opening the pericardium, the heart is seen pulsating strongly. The action of the auricles and ventricles are manifest.

All the organs are now more perfect. The calvaria is partly cartilaginous and osseous; the hooves are yellow, soft, and flexible. The caruncles are very large, and extend throughout the whole cavity of the uterus, and evidently perform the office of the placenta; numerous branches of the umbilical veins penetrate into them, so that they may extract nourishment for the fœtus from them: at birth, the chyle is transferred through the mesenteric veins into the portæ of the liver.

When there is one fœtus, the umbilical veins enter all the caruncles, but in case of twins, they enter those on the respective sides or horns.

All the smaller roots of the umbilical veins anastomose from larger trunks, until they finally terminate in two, which at length join and convey the blood into the vena cava and vena porta. The two umbilical arteries arising from the aorta, are so small, that unless for their pulsation, they would escape recognition; they run to the carunculæ, and terminate at first in capillaries, and are insensibly obliterated.

In the same way as the umbilical vessels terminate in caruncles, so do the uterine vessels, which are large and numerous, convey blood from the mother, and terminate in the caruncules.

The umbilical and uterine vessels do not anastomose or terminate in each

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* The medical jurist is aware that artificial inspiration may change the colour and affect the buoyancy of the lungs, though the fœtus be born dead; but the observation in the text is correct as a general rule.

other. As the pullet in the gallinaceous egg is nourished by its umbilical vessels from the albumen or white, so in deers is the fœtus from a white albuminous fluid, and not from blood, which exists in the caruncles or their cells. It is for this reason that these caruncles are properly denominated placentæ (*hepar uterinum*), or uterine mammæ. But in mares or sows there are no placentæ or caruncles, and the fœtus is nourished until the time of parturition by the fluids enclosed within the secundines, nor does the conception adhere by vessels at any time to the uterus. Here is a specimen of the uterus and placentæ of a mare, in which there is no vascular connexion between them. Dr. Thomas W. Jones states, in his thesis, that it is not correct to say there is no placentæ in mares or heifers.

It is therefore manifest that in these, and in almost all oviparous animals, the embryo is not differently nourished in the uterus, from the chicken in the egg. The extremities of the umbilical vessels terminate in the albumen and yolk of the egg; so in deers and other animals, the umbilical vessels open into the humours contained in the conception, and into the albumen or whitish fluid in the cotyledons and caruncles.

There are in the human placenta many lobules or tubercles on its uterine surface.

On pressing the caruncles with the fingers, an albuminous fluid is expressed, as if from a nipple, which is the aliment of the fœtus: this is not blood. After this compression, the carunculæ collapse, and present many foramina or apertures like a sponge.

Towards the end of December, the caruncles adhere less firmly than previously to the uterus, and are easily separated from it. Thus, in proportion as the fœtus developes and approaches to parturition, the caruncles more readily recede from the surface of the uterus; and at length fall like a ripe fruit from a tree, as they had belonged to the fœtus.

These being separated from the uterus, we see traces of small arterial openings. But if the conception be separated from these, there is no discharge of blood; on the contrary, it flows from the extremities of the fœtal vessels. When the uterine vessels open into them, then they afford blood for the nourishment of the fœtus.

In January, February, and the succeeding months, there is nothing remarkable in the development of the fœtus of the deer, except the hairs, teeth, horns, &c., and those only enlarge, and have no direct reference to the function of generation.

Dr. Harvey dissected many sheep with young, and observed but very slight differences from the phenomena in deer.

The caruncles are small placentæ (placentulæ), are numerous, and of various sizes, and of a different form from those in deers. Thus, in sheep they appear round and spongy, in one mass, forming an abrupt peduncle, and are contained between the fœtal membranes and the uterus; its convex surface, as in the heifer, is turned to the uterus, its concave towards the fœtus; a a greater number of blood-vessels proceed to the concave surface; which is also observed on the fœtal surface of the human placenta. The roots of the vessels adhered so firmly to the caruncles, that on attempting to separate them, the convex surface was torn before it could be separated from the conception. The contrary occurs in deers; the fœtus is easily separated from the carunculæ, and even the convex part of these, which is conjoined to the conception, is separable; but the concave part, or root or peduncle, firmly adheres to the uterus.

In which ever horn of the womb the fœtus is situated, it transmits its umbilical vessels to the caruncles, that it may obtain nutriment. The horn in which the fœtus exists, is larger than the other. When two fœtuses are in one horn, the whole umbilical vessels run into this, and afford nutriment.

There is a fluid in the stomach, similar in colour, odour, taste, and consistence, to that in which the fœtus is situated. There was chyle in the superior intestines, green and scybalous fæces in the inferior bowels; the liver was large, the gall-bladder more oblong, and empty in some.

The ovology of the egg, deers, and stags, was also always observed in all viviparous animals (Exercit. lxx). The analogy or identity of the ovology of viviparous animals, will be strikingly apparent when we describe it in our species. In the preceding condensation of the conclusions of the illustrious Harvey, I have omitted a vast deal of argument against the opinions and doctrines of Aristotle, and various other ancient physiologists, and contented myself with collecting the original observations and inferences of the renowned author whom I have so freely quoted. I deem it right to make this statement, lest future lecturers might quote the preceding facts as all that Harvey had accumulated, and unjustly detract from his indefatigable laborious researches. I must also remark, that I have not given a literal translation of the original text, but only a summary of its author's conclusions. His observations on human parturition, on the membranes and fluids of the gravid uterus, on ovology, the placenta, development of the fœtus, and on conception, will be noticed when describing these portions of physiology.

GUY'S HOSPITAL REPORTS.

(*Continued from p.* 808.)

Albuminous Urine—Death with Convulsion—Kidneys granulated.—"About the month of December 1831, I was consulted by Mr. J. G. He was then suffering under dyspepsia, accompanied with frequent attacks of pyrosis: his complaints, he then told me, had been of long standing. I ordered him a few doses of blue pill, rhubarb, and magnesia, which relieved the most troublesome symptoms: and I did not see him again until August 1832, when from a slight injury, fungus excrescences arose on the extremities of two fingers, which, for a time, resisted all remedies, pouring out a considerable quantity of watery discharge, of a peculiarly faint odour: the application of Goulard-water, with pressure, the patient taking at the same time alterative medicines, at length healed these wounds in the September following.

"*Sept.* 1833. At this time, a total change had taken place in all Mr. G.'s symptoms: he had for some time lost the dyspepsia and pyrosis; his appetite was good; and, to use his own words, he could digest any thing; but complained of pain and throbbing in his head, intolerable thirst, huskiness in the throat, swelling of the legs towards night, and of the face in the morning: his pulse was now hard: tongue covered with a creamy coat: urine very abundant. He was advised to be bled; but he neither submitted to that, nor pursued any plan of treatment steadily. He continued much in the same state, till February 1834; when the pain in the head became less frequent, but more severe, returning generally once a week, attended with distressing vomiting: the œdema of the face and extremities somewhat increased: there was now, also, some fluid in the cavity of the abdomen. Soon after this, he took a long journey into the country, where he underwent great fatigue, and suffered from a more severe attack of head affection and vomiting than before; which induced him to return to town, and consult Dr. Babington, which he did on the 26th of March. After a very careful and patient investigation of the case, Dr. Babington, having tested the urine, and finding it to contain albumen, declared it his opinion that the kidney was the seat of disease. He was ordered to take alterative mercurials and tonics; and to be cupped over the region of the liver, where he complained of pain increased upon pressure. The following week he saw Dr. Babington again; he complained of noise in the left ear, and slight numbness of the right hand and foot: the pulse at this time was feeble. Dr. Babington, however, ordered blood to be taken away, if any aggravation of symptoms should occur. On the morning of the 5th of April he was attacked with epilepsy; and a medical gentleman living near immediately bled him. The pulse rose wonderfully, and continued so strong as to induce us to repeat the bleeding the next day; which, together with purgatives, subdued the convulsions for a time. On the 11th of April, however, he was suddenly seized with another fit, which returned at longer or shorter intervals, until the following day, when he sunk.

"*Sectio Cadaveris.*

"The membranes of the brain, particularly the pia mater and arachnoid, much thick-

ened; more than two ounces of water in the ventricles; the brain being altogether firmer than usual: the septum lucidum thickened and tough: plexus choroides paler than usual.

"The lungs were emphysematous; the air-cells much enlarged, and ruptured.

"The heart rather larger than usual; the left ventricle somewhat thickened; and the semi-lunar valve slightly ossified: some water was found in the cavity of the chest.

"All the abdominal viscera healthy, except the kidneys; which were much smaller than usual, of a grey and granulated structure."

For the details of the following case, I have to acknowledge the kindness of Dr. Babington and Mr. Wheelwright, under whose care it was, and by the former of whom the history has been drawn up: and its interest is somewhat enhanced by the fact, that the urine had not been examined, and that nothing had occurred which could, under ordinary circumstances, have led to a suspicion of the kidneys being affected: yet the insidious disease had been silently making its way, till it terminated with successive symptoms, so precisely similar to those of the other cases I have related, that the examination after death, which shewed that the kidneys alone, of all the organs of the chest and abdomen, were diseased, served at once to explain the otherwise anomalous train of events, and to account for the little benefit derived from remedies, which, in the present state of our knowledge, appear to be altogether powerless in this stage of the disorder. This case affords a strong example of the disease of the kidney passing to its most fatal period, without the slightest symptom of dropsical effusion—a state of things, which, above all, is apt to throw us off our guard, and lead us to overlook the derangement of the kidney: and it points very forcibly to the value of the information, which is probably, in many cases, to be acquired by no other means except the careful examination of the urine.

Death, with Convulsion and Coma—Kidneys granulated.—"Mr. P., an athletic young man of 25 years of age, by trade a plumber, came to Mr. Wheelwright, on the 6th of December last, complaining of dyspepsia, with some degree of dimness of sight. These symptoms being referred to biliary disorder, some aperient medicine, followed by bitter tonics, was administered; and in the course of two or three days, Mr. P. returned to his employment. On the 24th, he was again complaining; and a third time, on the 3rd of January, when he remained under medical treatment until the 12th; and even then continued so much indisposed, that he was advised not to return to business. He did so, however, and continued superintending some plumbers' work on the top of one of the public buildings, until the 21st. On that day he was much exposed to the weather, and returned home ill, as if from cold. In the middle of the night he was seized with a fit of a convulsive, but somewhat anomalous character; for he required restraint on the part of his attendants. and yet was not altogether deprived of consciousness. Mr. Wheelwright saw him two or three hours after the commencement of the attack, at five o'clock on the following morning; at which time he was totally blind, had a very quick pulse, and was suffering from intense pain across the forehead. He was immediately bled copiously, and was sufficiently sensible to hold out his arm for the purpose, and to recognise Mr. Wheelwright. A brisk cathartic was also exhibited. In the course of the forenoon, he was again bled; and the pain continuing, he was cupped in the afternoon. I saw him, first, on the following day, when there was still considerable arterial power, which was seen, as well as felt, in the branches of the temporal artery: the pain across the forehead, though diminished, was not removed; and the blindness continued. As our patient had already lost upwards of forty ounces of blood, we determined to try the effect of mercury, to the extent of producing mild salivation. On the 25th I visited him again, and found his vision somewhat improved, so that he could distinguish the number of fingers held up before his eyes: the pain of the head was greatly relieved. A topical abstraction of blood, by leeches, was, I think, directed on this occasion; and this was to be followed by the application of blisters to the temples. No signs of salivation yet appeared, and the mercurial plan was continued. I did not see our patient again until the 29th, when I found him complaining greatly of the soreness of his mouth, which had increased so much as to engross all his attention. What particularly claimed our notice, however, was a degree of drowsiness, which seemed gradually increasing, and could not be accounted for by any circumstances in the treatment. The mercury had been discontinued for the last two days; the bowels had acted freely; and the urine had all along appeared of good colour and in sufficient quantity. A chloride-of-soda gargle, and some mild tonic medicine, were prescribed. The drowsiness,however, gradually increased from this time, until a state of complete coma was established, which terminated fatally on the following day. On examination of the body, within a few hours after dissolution, a small quantity of fluid, certainly less than half an ounce, was found in the ventricles of the brain; and there seemed to be some softness in the substance of the brain generally, about its basis; not, however, to such an extent as to constitute a degeneration in its structure. The optic nerves seemed quite healthy, throughout their whole tract. All the viscera, as well

of the abdomen as of the chest, were perfectly healthy, except the kidneys. The peritoneal and proper tunic of these were thickened and opaque; and when stripped off, exposed the surface beneath, rough, and of a grey mottled appearance. This diseased structure was seen, on section, to extend throughout the substance of the organ: both kidneys were equally affected. The urine was, I regret to state, not particularly examined in this case; for there had not been the least tendency to dropsy during the progress of the disease, nor any complaint of pain in the loins to indicate its seat."

The report of the following case is copied from the Museum Note-book; where, I believe, it was written by Mr. King.

Albuminous Urine of four or five Years' continuance—Death with Convulsion and Apoplexy —Kidneys degenerated. — "Mary Brooks, aged 24, was admitted under the care of Dr. Bright, into Charity's Ward, where she has been two or three times before. For four or five years she habitually passed coagulable urine. Her blood had been analysed, both by Dr. Prout and Dr. Babington, and had been found to contain urea: during this time, she had been repeatedly and greatly anasarcous. Latterly, her head had become affected, and she laboured under fits of an epileptic character. Her complexion was pale: but she appeared well nourished, and less sickly than could have been anticipated from the nature and continuance of her complaint. A few days before her death, she called in the ward to see the sister: whilst there, she was seized with a fit, from which she never recovered, but remained insensible to the time of her death. It had never been remarked that her pulse was irregular.

"*Sectio Cadaveris.*—The cranium was unusually thick, with a general but slight irregularity on its surface: there was a small exostosis, apparently, of much closer texture than the rest of the scull, about the size of the end of the little finger, situated at the anterior part, near the falx; and there were one or two much smaller ones nearly in the same situation: beneath the arachnoid was a copious effusion of serum. The cineritions substance of the brain was somewhat injected. The medullary likewise contained more than the ordinary quantity of blood, occasioning a slight marbling, visible on its incised surface: in other respects, the substance of the brain was healthy: but the lining membrane of the ventricles was rather thickened; and in each plexus choroides there was a small defined body, nearly of the size and form of a small horse-bean, which was of a light yellowish colour, and of a moderate degree of firmness: each appeared to be enclosed in a cyst: and the material within was somewhat grumous, especially near its centre. There was merely the ordinary quantity of fluid in the ventricles. The pituitary gland was perfectly healthy. The pleuræ were free from adhesion. There was some appearance of inflammation in the left lung, posteriorly. There was likewise some little appearance of pulmonary apoplexy in the right lung; and also some appearance of inflammation, but to a less extent than in the left. The pericardium was healthy. The heart was of moderate size, and likewise healthy, with the exception of a little thickening of the mitral valve: the aorta was healthy: but there was a minute white spot beneath its lining membrane, near its origin. The peritoneum was generally healthy, but there were some old and very partial adhesions, especially in the pelvis: one of these was so situated, as to render internal strangulation a possible event. The stomach and intestines appeared to be healthy; but the solitary glands in the duodenum were rather large. The liver was healthy; but there was a partial thickening of its tunic on the convex surface, connected with an old peritoneal adhesion. The pancreas was healthy. The kidneys were small, rather granular on their surface, of a very firm and dense texture, and of a light colour. From the far-advanced state of the white deposit described by Dr. Bright, their small size was evidently the result of contraction; the cortical part being greatly reduced in thickness, and the surface lobulated, as in the fœtus. The uterus was healthy, but apparently in a state of menstruation. The ovaries were rather plump, and their tunics generally smooth, having one or two equivocal appearances of cicatrices: a cyst, about the size of a hazel-nut, and of a dark colour, projected from near the end of one of them: on being cut into, one was found to contain extravasated blood, part of which was of a dark venous colour, and apparently but recently coagulated; whilst a smaller portion was of a much firmer consistence, and of a lighter and brownish colour, indicating a previous extravasation: it was evidently the result of derangement in one of the vesicles of De Graaf: there were two or three corpora lutea in one or both ovaries."

This young woman was living at the time I published the second volume of my Reports (1831); and I have there said: "In one very remarkable case, where the albuminous condition of the urine has constantly existed as far as I know, from frequent experiment for above three years, the quantity of urea in the blood is very considerable; yet the patient, who is a young woman, enjoys very tolerable health, and has a healthful appearance between the severe attacks of anasarca, of which she has been the subject; but has latterly been affected with frequent fits, which assume a decidedly epileptic character. The results of chemical analysis, conducted by my friend Dr. Babington, were, that the urine did not contain one third of the urea which it does in health, while

about one per cent. of albumen supplied its place. The serum of the blood was remarkably light, in consequence of its deficiency in albumen; having a specific gravity of 1021, instead of 1030; and the quantity of albumen in 1000 grains of serum amounting, after careful drying, to only 50 grains; whereas from 80 to 100 parts in 1000 is the usual proportion in healthy serum; and it contained fully as much urea as the urine did, the 1000 grains yielding nearly 15 grains of that substance."

As these observations were made during the life of this patient, the circumstances of the examination after death possess great interest. As far as one case can go, we have the full confirmation of the coincidence of the various symptoms, with the peculiar degeneration of the kidneys, which was anticipated from the long continuance of the disease: we likewise perceive, that there is at least no necessary connection, although there are such frequent coincidences between hypertrophy of the heart and the disease of the kidneys, even where it is attended by the presence of urea in the blood, and has proceeded to the hardening and contraction of the organs. With regard to the question of cerebral symptoms, that is left untouched by this particular case; because there was a small bony exostosis from the scull, which might have been the source of the epileptic seizures; though very probably this source of irritation would have remained innocuous, but for the state of the circulation induced by the constitutional disease.

Albuminous Urine—Death with decided Cerebral Symptoms, after the Disease had probably existed for two Years.—Jeremiah Collins, aged 50, an Irishman, who has served seven years in the navy, and for nineteen years been a common labourer, was admitted into the Clinical Ward, Feb. 3, 1836. Although he had experienced casual illness before, he considered himself quite well, till two years ago, when he had occasion to drive a cart during the whole of a very rainy day, and was wet through from morning till night. He drank a great quantity of spirits on that day, but not sufficient to produce intoxication. The next morning he found his abdomen a little swollen; penis and scrotum œdematous; and he suffered pain in the head. He has never since been well, having been frequently laid up; and taking medicine, and working in the intervals. His mouth, he says, has often been made sore; and he enumerates four separate times, under four different medical men, all of good repute, who had put him under mercurial courses, without any marked relief.

The present symptoms are, occasional pain and heaviness of the head, felt principally at night; mouth still under the influence of mercury; cheeks puffed; difficulty of breathing, especially whilst in the horizontal posture; cough, which is most urgent at night; some expectoration; sound of heart unnaturally diffused; palpitation on slightest exertion; abdomen considerably distended, and fluctuation distinct; penis and scrotum, together with both upper and lower extremities, œdematous; pupils dilated, but not insensible to light: vision in both eyes has been imperfect for about eight days, so that he cannot recognise any one at the distance of four or five yards.

Feb. 4. Does not seem so well as he was yesterday. Complains of a sensation of fulness in the abdomen. Fainted this morning at eight o'clock; after which he perspired freely. Bowels open once; motion costive: tongue covered with a brown fur in the centre, white at the sides: pulse 88, rather sharp, but compressible; urine slightly acid, of pale colour, coagulable; and becoming very much like milk in appearance, on the application of heat.

> Applicetur Emplast. Cantharidis Nuchæ.—Habeat Pulv. Antimon. gr. v. ter die.—Ext. Col. c Cal. gr. xv. statim.

5. Has slept well, and his bowels have been freely opened. The swelling of the penis, scrotum, and legs has nearly subsided: pulse 112, weak.—He was put upon the milk diet.

This man rallied a little occasionally, and the œdema was sometimes much diminished; but, upon the whole, he seemed to get weaker, and the antimonial powder was given up for the camphor mixture with gentle diaphoretics; and a small quantity of wine was allowed him.

22. He feels better, and the cough and expectoration are much less. One copious healthy motion. About four pints of urine passed in the twenty-four hours, rather dingy. Skin moist; pulse 80.

At 2 o'clock, fainted, and was afterwards sick; vision becoming more indistinct, and the articulation more difficult. He was again sick about 9 o'clock.

23. Complains of giddiness and of drowsiness, but of no particular pain in any part. Dimness of vision increases: he is now only just able to distinguish a pen held in the hand at the distance of a yard: has cold shiverings frequently. The action of the heart is so much increased by the exertion of raising himself in bed, as to be heard over every part of the chest distinctly. Pulse 80, and soft, while he is lying quiet: bowels not open since yesterday: a large quantity of urine has been voided.

The symptoms, which had been increasing upon him, made rapid advances. In the evening, he became comatose, and died the following morning. No examination of his body could be obtained.

Coagulable Urine—Death from Peritonitis

—*Kidneys much diseased.*—H—— M——, aged 43, was admitted into the Clinical Ward, Dec. 16, 1835, with general œdema, sallow countenance, and pale lips. He passed a large quantity of urine, which was highly coagulable; and he had frequent calls to void it. He had considerable cough and expectoration. The account obtained of him was, that he had been a tailor in the corps of Marines for twenty-three years, and had lived a very intemperate life; he had, however, enjoyed good health generally, but about a year ago had acute rheumatism and dropsy; since which time he had been less healthy, suffering frequently from cough, which had greatly increased during the last ten days.

He was cupped at the scrobiculus cordis, and had half a grain of elaterium administered. The report of the following day was, that he had expectorated much muco-purulent matter. He had passed several very watery stools. Urine plentiful; and he had fourteen calls to pass it: it was greatly coagulable, both by heat and nitric acid: of specific gravity, 1020. Pulse 84, weak, but regular. Attention was chiefly paid to the cough, and a local affection of the scalp.

On the 22nd, six days after admission, the daily report was—Bowels opened three times: motions of a dirty white colour, and first beginning to get pale two days since. No pain in the loins, but a pain over the region of the liver: no œdema in any part of the body: pulse 88: cough troublesome. The urine remained unaltered in its character: his bowels were freely acted upon by frequent doses of calomel and colocynth: he was cupped over the region of the liver; and he took salines and diaphoretics. On the 27th, there was a slight return of œdema; but this again disappeared; and on the 3rd of January it was reported—"Bowels open three times: cough and expectoration almost gone: sores on the head nearly healed."

On the 8th of Jan., considerable œdema returned in his legs and arms; but he chose to leave the house, with a view of returning to his occupation as a tailor; and accordingly went, without any intimation of his intention. When I heard that he was gone, I expressed my regret, and stated my fear of the result; but I was certainly not prepared to expect that within three days we should be requested to come to examine the body.

We learnt, that, on leaving the hospital, he walked home, beyond the town; had a single pint of porter; and expressed his intention of resuming his employment next day; but in the evening, he complained of pain in the head, and most intense and excruciating pain in the abdomen; which his sister-in-law said she could compare to nothing but labour-pains rapidly succeeding each other; and he was at times delirious: he likewise suffered from excessive shivering and coldness; so that he had a large fire made, and sat before it; opening the blanket, in which he was enveloped, to admit the heat. This state of things continued more or less through the whole of the following day and night; and on the next day about two o'clock, having for two hours before his death become apparently blind, he died, little more than forty-eight hours having then elapsed from the time when he left the hospital.

Sectio Cadaveris.—The arachnoid was slightly opaque, particularly along the middle of the sulci of the convolutions; and there was rather more fluid than natural, both beneath it and in the ventricles. The lungs were healthy and crepitant, without adhesion to the pleuræ: the heart large and muscular, but the valves healthy. The abdomen contained a full pint and a half of serum, evidently the result of acute inflammation: it had nearly the consistence of very thin arrow-root or gum-water, opaque, but not puriform. The liver was quite healthy in its structure; but had an unnaturally light and opaque appearance, owing to a thickened condition of its peritoneum. The kidneys were diseased to the utmost degree; they adhered very strongly to their tunics; were lobulated in shape, large, and almost white, with a slight tinge of yellow. When cut into they were almost cartilaginous in consistence, shewing the same perfectly white colour, with specks of yellow throughout the cortical part; the tubuli presenting a very strong contrast, by their deep red colour. Of these kidneys a very beautiful model was executed in wax, by Mr. Town, and is deposited in the Museum.

Albuminous Urine—Death from Peritonitis—Kidneys diseased.—W. Burford, aged 21, was admitted into Guy's Hospital, under my care, Sept. 23, 1835, the subject of general anasarca, with urine dingy in colour, acid, and very coagulable by heat. He complained of some pain and uneasiness in the loins, and his skin was hot and dry. He was put upon the use of antimonials and Dover's powder; was kept strictly in bed; was cupped on the loins; and subsequently had a seton in that part. It soon, however, appeared that his stomach was peculiarly irritable; and it was necessary to change the remedies, as also to relinquish the milk diet. He made some progress for a time, but it was neither steady nor satisfactory; and in the second week of January he was seized with acute peritonitis, under which he sunk in three days.

Sectio Cadaveris.—The heart was large. The lungs gorged with blood and serous effusion. The cavity of the pleura nearly obliterated by both old and recent adhesions: the small cavity which remained

was occupied by fluid. On separating the lungs from the walls of the chest, the costal pleura was found completely covered by an adventitious membrane, firm, hard, and even cartilaginous, in some places half an inch thick. The surface of this bore evidence of a more recent softer deposit, which extended upon the diaphragm and surface of the lungs. By using considerable force, this adventitious layer could be stripped off, leaving the surface of the costal pleura entire. The abdomen shewed marks of extensive recent peritonitis, and contained a quantity of an opaque tenacious fluid. The parietes were, in several places, adherent to the viscera, by means of a false membrane, similar to that found in the chest, but neither so thick nor so hard. This adventitious deposit covered the liver, gall-bladder, stomach and duodenum, and arch of the colon, glueing them together, and connecting them to the abdominal walls. The small intestines and lower viscera were tolerably free from disease, but exhibited on their surface occasional patches of the false membrane described above. Two small transparent cysts were attached, by a long very slender peduncle, to the mesentery. The kidneys were very large, and, though decomposition had advanced far in them, were evidently affected with the diseased mottled structure.

Nothing can be more striking than the similarity which is observable in all these cases. I am not aware of any disease in which the character is more completely preserved, or in which the symptoms more clearly mark a specific form of malady. In the first eight cases, the termination, as well as the progress of the disease, bore the most perfect resemblance; and the peculiar train of cerebral symptoms, by which their advanced stages have been attended, have little analogy, when taken as a whole, with the symptoms of any cerebral affection. The two last cases differ from the rest only in their mode of termination; and I have related them as the two most recent illustrations of a very frequent result of the disease.

Of the insidious nature of this malady, and its fatal tendency, these cases afford a pretty convincing proof: and the fact, that so many of these have come within my own observation in a limited time, would be tolerable evidence of the extreme frequency of the disease. Yet the cases I have now detailed, but more especially the many more which the length of the present communication obliges me to defer, are chiefly such as I have, without any intention of publication, chanced to enter in my note-book, and form but a small portion of those which I have seen.

Reviews.

Address of Earl Stanhope, President of the Medico-Botanical Society, for the Anniversary Meeting of 1836.

It is highly gratifying to the friends of science to observe a nobleman of talent among its patrons, and one so zealous in promoting its progress. The Medico-Botanical Society, though greatly injured by past occurrences in the eyes of medical practitioners, is now engaged in investigating many medicines which are not described in our standard works on Materia Medica. An abstract of the proceedings of this Society, will show our readers the objects it has in view; and these we shall make from the address of the noble President, which was lately delivered before a crowded auditory at the Royal Institution.

"You will recollect that the Silver Medal of this Society is offered as a prize for the best Essay '*on the medicinal qualities of any indigenous plant which is not yet sufficiently known, or on new uses and applications of any other indigenous plant.*' That prize was awarded by the Council to Dr. Rousseau, of Paris, for his admirable paper on the employment in the cure of intermittent fevers by holly, and by a preparation from it which he terms *ilicine*. It had already been stated by several authors, and amongst others by Dr. Murray in his *Apparatus Medicaminum*, that the leaves of the holly had that property, and had been employed with great success by a physician who had learned their sanative quality from a person ignorant of the art of medicine. He refers to a Memoir by Durande, in the Transactions of the Medical Society of Paris, and it appears also to have been found by Reil, that 'after those fevers resisted the use of the Peruvian bark, they yielded to that of this indigenous plant.' It had, however, fallen into unmerited oblivion, from which Dr. Rousseau has the honour of having rescued it by a series of trials the most satisfactory and perfectly decisive. The restoration of that which is lost is inferior only in interest, and may be superior in importance, to the discovery of that which is new, and the world will recognise, with due gratitude, the services of those, who, like Dr. Rousseau, have established, beyond the possibility of doubt, that one of the most common plants affords not only an effectual substitute for an expensive drug, which is frequently adulterated, but also one which, as he assures us, 'has fulfilled all the conditions required of it to supersede the Peruvian bark in the treatment of intermittent fever.' We find, in fact, amongst the 78 cases recorded by him,

and by other physicians, that there were 10 in which bark and quinine had failed; that in one of these, 36 quinine boluses had been administered without effect, and that in another the cure had been accomplished by a single dose, consisting of two drachms of the powdered leaves of holly, and in the short space of four days. *Ilicine* was employed in only one of the 78 cases, which was that of nervous fever, accompanied with quotidian ague, but the preparation of the leaves is as much distinguished by its simplicity as by its efficacy, and would seem, by its being generally used in the trials that were made, to be considered equally serviceable. The dose consists in two drachms of the dried leaves reduced to powder, and macerated for 12 hours, or in four or five ounces of a decoction. It is very much to be wished that Dr. Rousseau had favoured us with the results of his experience on the comparative advantages of the infusion and of the decoction, but judging from analogy, I should conceive that the former had the preference.

"Rheumatism, which is always so painful and often so difficult of cure, which cripples the limbs of the patient, and in many cases deprives him of repose, is the subject of two papers that were communicated to this Society,—the one from Dr. Lombard, of Geneva, and the other from Mr. Maynard, in a letter to Mr. Battley. Dr. Lombard found, that in acute articular rheumatism, the spirituous extract of the *Aconitum Napellus*, prepared as he directs, was eminently efficacious, and he states, that all the patients were speedily cured, 'without the supervention of any bad symptoms,' that he never knew a single case which had resisted his plan of treatment, and that he prefers that remedy to opiates, sudorifics, and tartarized antimony. In two cases, both of which had lasted a fortnight, the patients were cured in 48 hours; one of them by taking half a grain three times a day, and the other by taking 2 grains every two hours. He condemns the usual mode of preparing the spirituous extract, and thinks that the volatile principle of the plant is preserved by the process which he adopts; but it may be doubted whether it is not very much diminished, if not wholly lost, by the two evaporations that he employs, and whether its active principle, which, according to the opinion of some chemists, is destroyed by heat, does not suffer from undergoing a slight boiling. The largest dose which he administers is 9 grains every two hours, but he says that 3 or 4 scruples, or even 1½ drachm may be given in a day without any injurious effects, which, however, does not prove it to be innocuous, for we know that such is also the case with some other medicines which, frequently repeated, produce dangerous and even fatal consequences; and he allows that the *Aconitum Napellus* has a powerful action on the nervous system. He states, that it does not destroy what he calls the rheumatic *virus*, but only neutralizes its morbid action, and often alleviates the pain within an hour. It may perhaps operate as a narcotic; but from the trials which he made, it cannot be considered as a sudorific, although it was supposed to be such by the celebrated Störk. It was observed by Dr. Lombard to produce only in one case perspiration, and in another case the perspiration, which had previously existed, ceased after the use of the remedy, and, as he believes, in consequence of its operation. It must be remarked, that the plant, which was named by Linnæus the *Aconitum Napellus*, is, as we are informed by Mr. Batka, of Prague, a different species from that which was employed by Störk, and which is the *neomontanum* or *intermedium*, names which are not found in the *Hortus Britannicus* of Sweet; but the *Napellus* is also a synonym of the *neubergense* which grows in Styria.

"Of much greater merit is the communication of Mr. Maynard on the leaves of a plant from the Cape of Good Hope, which is called *Buchu*, and which, infused in spirits, has in this country proved extremely successful in rheumatisms, even in cases of elderly persons who were become cripples, but who in a short time were enabled to return to their labours. It is applied externally and by friction, and is therefore far safer in its application than the *Aconitum*, besides having the advantage of being a domestic remedy, which even in unskilful hands cannot be injurious. Mr. Maynard is led to 'believe that there are virtues in the plant beyond what it has credit for at present; and the facts which he mentions prove that such must be the case: so that it would be extremely desirable to ascertain its scientific name, and also whether it could be cultivated in this island. Most earnestly do I wish that some person who is eminently qualified for the investigation, would instruct us on its chemical analysis, and that large quantities of the *Buchu* leaves were sent to this country for the use of the medical profession, and for the relief of those who are afflicted with rheumatism. In chronic disorders of that description, Dr. Negri found that beneficial effects were produced by the *Ballota lanata*, administered in decoctions from ½ oz. to 1 oz., half at night and half in the morning, and that it operates both diaphoretically and diuretically; from which latter quality it was considered useful in dropsies.

"The bark of the *Prunus Padus*, or common Bird Cherry, which has a strong spicy smell, and a taste resembling that of bitter almonds, is stated by Dr. Murray, in his *Apparatus Medicaminum*, to be employed in Lorraine and Sweden as a remedy in intermittent fevers. Dr. Bremer, who published in the German language a most interesting

tract on that plant, found that it very often failed in those disorders, but that it was of great efficacy in cases of rheumatism, and that when distilled it operated as an antispasmodic, and also as a vermifuge. When given in rheumatism, it ought not to be administered if there is inflammation, as it is then injurious, and it acts generalty as a diaphoretic, sometimes as a diuretic, and in most cases accelerates the circulation. The bark is to be collected in the spring, before leaves appear, is to be used when fresh, and is to be taken in an infusion or decoction. Such were the beneficial effects which it produced, that relief was experienced in 24 hours, and one-third of the patients, of whose cases he has given a very clear and detailed statement, were cured in less then a fortnight. This very useful discovery was the result of accident, and arose from his observing its salutary influence upon those patients who suffered from rheumatism, but to whom it was administered, from their having at the same time intermittent fevers; and it affords another proof, if indeed any could yet be wanted, of the extreme importance, nay, of the absolute necessity, of actual trials.

"Dr. Hancock, whose long experience and extensive observations can be equalled only by his indefatigable perseverance in promoting science and the interests of humanity, has furnished to this Society some very valuable communications. One of them relates to the *Waicouri*, or *Waik Root*, in Guiana, where he so long resided; and he informs us, that an infusion of the dried root furnishes a very powerful resolvent remedy, and has an anodyne or antispasmodic influence somewhat analogous to that of opium, but without any of its injurious effects. That influence is perhaps the cause of the beneficial operation that it is found to possess in diminishing the irritability of the pulmonary organ, the disease of which is so often fatal, and is in this climate so frequent and alarming. In the advanced stages of that disease, it is combined with the *Justicia pectoralis*, with the *Abrus precatorius*, and with other plants, but especially with sarsaparilla, which is of great importance, and which Dr. Hancock considers to be one of the most essential auxiliaries in that malady. The colony of Guiana furnishes several plants, which, from their medicinal qualities, deserve further inquiries; and amongst others, as we learn from a paper of Mr. M'Lennan, that was read before this Society, the *Aristolochia siphoflora*, which is an excellent vermifuge, and the *Elaterium reticulatum*, which is useful in bilious fevers. Dr. Hancock mentions also a plant which is called by the natives *Coonuparu*, and from which a tincture is prepared, that, administered in a dose of 5 to 10 drops, is a 'most efficacious remedy' in internal inflammation, and gives speedy relief. The seeds of the plant act as an hydragogue cathartic, and are of considerable service in dropsies. The plant is used by the natives for intoxicating fish, and is in that respect similar to the *Piscidia erythrina*, or Jamaica dogwood, upon which Dr. Hamilton, one of our corresponding members, communicated to us, some time ago, a very interesting paper. From observing its narcotic effects on fish, Dr. Hamilton was induced, very justly, to suppose that it might have a corresponding operation on the human species, and the result fully confirmed his expectation; for it was found to act like opium, without, however, producing its injurious consequences. As the nux vomica is well known to be employed also for the purpose of intoxicating fish, may not that circumstance have led to the discovery of its medicinal qualities? and must we not recognise, in every instance, the extreme importance of carefully observing the operations of nature, which are the most admirable, as well as the most instructive, and which lead us not only to the knowledge of truths, that might otherwise remain for ever hidden from our view, but also to the contemplation of Divine Providence?

"The nux vomica is considered by Dr. Hancock to be 'an incomparable remedy in dysentery and diarrhœa,' when administered three times a day in doses of 2 or 3 grains, combined with an equal quantity of ipecacuanha, and to be, as an anodyne, superior to hemlock, as well as very useful in hysteria and nervous disorders. He states, that it causes no sensible evacuations, that it checks all inordinate discharges, which exhaust the vital powers, especially the aged or infirm, and that, 'under proper management,' it efficiently sustains the powers of the digestive organs, and strengthens the fibres. The nuts ought, in his opinion, to be roasted, as that operation diminishes their narcotic power, but not their sanative qualities; and he thinks them far preferable to strychnine, as they are a better tonic, less irritant, and more constant in their operation. Strychnine, which appears to contain only the narcotic principle, is, from its high price of four or five guineas an ounce, very liable to adulteration, and from the uncertainty of its strength, which varies according to the mode of its preparation, perilous in its employment. It need not be remarked that the utmost prudence is requisite in administering such a toxicological plant as the nux vomica, of which my learned and lamented friend, Professor Geiger, of Heidelberg, states in his *Pharmacopœia Universalis*, which, I am grieved to say, death prevented him from completing, '*Vis maxime venenata, narcotica, facile tetanum efficiens et lethalis.*'

"The loss of such a luminary of science as Professor Geiger is a most grievous misfortune to this Society, and to the learned

of all countries, and is felt very severely by myself, who had the happiness of enjoying his personal friendship, and of admiring the domestic virtues which endeared him to his family, as well as the talents and acquirements by which he was eminently adorned. They acquired additional lustre from his modest unassuming character, which was not tarnished by pride or by presumption; and they were directed, with unceasing perseverance, and with unwearied industry, to the zealous pursuit of objects of great practical importance. His works, some of which are in the library of this Society, and were presented by him when he became a corresponding member, are an eternal monument of his merits and services, which can require no panegyric, and cannot be eulogized as they deserve. It was by the express command of his sovereign, the Grand Duke of Baden, that he began to compose his *Pharmacopœia Universalis*, of which he published the first volume, comprising the *Materia Medica*, and of which the second was intended to contain a comparative statement of the preparations found in all the European Pharmacopœiæ. So conscientiously did he discharge the duties which were imposed upon him, that in order to prevent any inaccuracies which might arise from inattention, he declined the assistance of any amanuensis, being determined, when conferring benefit on others, to spare no labour to himself.

"Mr. Judd, who, as you are well aware, is a most valuable member of the council, and is now the librarian, has communicated a very interesting paper on a new, elegant, and useful extract of cubebs, prepared by Mr. Toller, also a fellow of this Society, and of its beneficial effects in urethrisis. His trials of that medicine were most satisfactory, and the cases which he details bear ample testimony to its merits, as one of the patients was cured in four days of a disorder that had continued for six weeks, and three others in seven days. He found that the extract fully retains the resin and the active sanative qualities of the spice—that it passes, without being much altered by the action of the stomach, to the urethra, and cools and prevents the secretion of that organ. It renders still more effectual the action of turpentine and copaiva, and is of advantage when the latter aggravates the symptoms; but it is to be used only in the first and third stages of the disease, and is injurious in the second. It is strongly recommended by Mr. Judd, as preferable to the ordinary preparation, which tends to produce plethora in the vessels of the brain, and may therefore be very dangerous. Mr. Toller, to whose scientific skill we owe this preparation, informs us, that the cubebs should be digested repeatedly in alcohol, which is then to be distilled, and to which some Spanish soap is afterwards to be added, in order to prevent the separation of the resin, and to preserve an uniform consistence.

"My learned friend, Dr. Sigmond, whose professional eminence, whose scientific acquirements, whose zealous, unremitting exertions in promoting the welfare of this Society render his assistance of inestimable value, and such as we cannot acknowledge with sufficient gratitude, has, amongst other communications that are equally useful and instructive, favoured us with a paper on Endermic Medication, which physiologically is extremely curious, and therapeutically is of great importance. That mode of treatment was found eminently successful with *Digitalis* in dropsy, with *Belladonna* in rheumatism, in difficult parturition, in the reduction of hernia, and in dysuria, with *Castor Oil* in obstinate constipation, with *Camphor* in erysipelas, in peritonitis, in hæmorrhages and in cerebral affections, and with *Iodine* in tumours and glandular complaints. All these remedies exerted their sanative properties by friction on the skin, but when a portion of the epidermis was removed, and what is strictly termed the endermic medication was applied, the results were also very favourable with *Quinine* in intermittent fevers, with the *Acetate of Morphine* in rheumatism and in several other disorders, and with *Strychnine* in paralytic cases. It would be superfluous to descant upon the advantages which attend this mode of treatment when the stomach is so irritable as not to retain medicine, or when from other causes it cannot be administered internally; and the learned author appears to have distinguished most judiciously the circumstances under which it ought to be tried from those which render it unsuccessful.

"In the course of last year, we were afflicted with a calamity which is most deeply to be deplored, and we sustained a loss which it is almost impossible to repair; —I need not add that I advert to the untimely decease of Mr. Burnett, the Professor of Botany to this Society, and also to King's College. His name, which is become illustrious by his writings, will be transmitted by them to future generations, and his memory will constantly be cherished with admiration by this Society, of which he was one of the brightest ornaments, and to which he had rendered the most important services. His career, which was so honourable to himself and so useful to the world, was prematurely terminated, and he fell a victim to his zealous exertions, which his health and strength were unable to support, but which his ardent attachment to science impelled him to continue. His lectures must be indelibly impressed upon your recollection, and were in the highest degree attractive, as his various acquirements and extensive information supplied him with inexhaustible materials for illustration, and

with innumerable facts which were equally interesting and instructive. Amongst the many eminent qualities which he displayed, none was more conspicuous than his philosophical mode of treating, and his rare and admirable talent of adorning, a subject, which would otherwise be tedious and repulsive.

"In a communication which was received from Mr. Batka, of Prague, it is observed by him, that the *Matricaria Chamomilla* (the wild chamomile), which is officinal in Germany, and which is nearly allied to the *Anthemis nobilis* (the common or Roman chamomile), is much preferable to it, and that the essential oil of the former, which constitutes its active principle, is very different from that of the latter. He considers the former to be useful in hysteria, and to be an excellent cordial, while the latter sometimes produces spasmodic symptoms; and the former to be a mild and useful emetic, but the latter to be violent and irritating. His remarks seem to me very interesting, on account of the botanical analogy of the plants, and will, I trust, lead to trials in this country, with a view of ascertaining their respective advantages.

"We are informed by Dr. Hancock, that the quassia which is sold here is produced from the *Quassia excelsa* of Jamaica, which is a large tree, possessing very little value medicinally, and not from the *Quassia amara* of Surinam and Essequibo, which is a shrub, and is recommended in the Pharmacopœia; and he asks very properly, why they are classed in the same genus, when, 'in numerous instances,' plants have from the slightest disparities been placed in different genera? It appears that the *Quassia excelsa* is a synonym of the *Simaruba excelsa*, as the *Quassia Simaruba* is of the *Simaruba officinalis*. He observes also, that the medicinal qualities of the Guiacum are found in the bark, which has alterative, sudorific, and resolvent powers, but not in the wood and resin, which are alone admitted in the British Pharmacopœia; and he deserves our gratitude for having called our attention to these important points that so much require further investigation. He communicated also to this Society a paper on various barks which he had found in South America, and some of which, when combined, are, in his opinion, more safe and efficacious than the cinchona, particularly in cases of ardent or malignant fevers; and I need not recall to your recollection that a letter, with which I was favoured by Dr. Hamilton, mentions with great commendation a bark that is named *El Malambo*. Such is the merit of these barks, and such also the uncertainty which exists with regard to their botanical characters, that, as I learned last summer when I was in Germany, it is proposed to send some botanists to South America for the express purpose of obtaining further information respecting them, and of procuring specimens for those persons who contribute towards the expense of that laudable and useful undertaking. If that project should be carried into execution, I would recommend that scientific descriptions of the trees by which they are yielded, with specimens of their leaves and flowers, should be transmitted; informing us at the same time of their popular appellations, of the maladies in which they are supposed to be useful, of the manner, the dose, and the circumstances, in which they are administered, and that we should also receive large quantities of the barks themselves, in order that their distinguishing characteristics might be accurately observed and carefully defined, that their medicinal qualities might be learned by practical experience in this country, and that their constituent principles might be examined by chemical analysis. These barks would, as articles of commerce and for general use, be collected by persons ignorant of botany, and who might find it convenient or profitable to substitute that which can be provided in great abundance, or with little trouble, for that which is required from its medicinal qualities. It is, therefore, of extreme importance to know what are the 'outward and visible signs' by which the genuine barks may be distinguished from those which are spurious, and that the merchant who imports them may be able to judge which of them ought to be received, and which of them ought to be rejected. It is of equal importance that the pharmacopolist should be enabled to judge whether the barks with which he is furnished are those which he is directed to employ, and to ascertain whether such is the case, not by an operose analysis, but, as far as is practicable, by some more easy and simple process. The utility of defining with great precision the characteristics of different drugs, induced my learned friend Dr. Martius, of Erlangen, to write upon that subject a most valuable and elaborate work.

"In all researches of this nature Mr. Battley is well qualified to enlighten the world, from his profound knowledge, from his eminent talents, from his scientific investigations, which are conducted with so much skill, and crowned with so much success. The services which he has rendered to pharmacy are so numerous, so well known, and so valuable, that they need not be enumerated; and he appears to have incontrovertibly, and by the most decisive experiments, established a principle of the most extensive application, and of extreme importance, that a greater quantity of the medicinal qualities of some vegetable substances is extracted by cold infusion than by decoction. He states, with respect to sarsaparilla, 'if sufficient time be allowed, cold water (*i. e.* at the ordinary temperature

of the laboratory) will take up nearly the whole of the soluble principles without dispersing the aroma.' This was satisfactorily proved by his analysis of several sorts of that very useful drug, which he believes to be the produce of more than one species, and probably of not less than five. It was found with the lima sarsaparilla, that the average quantity of active principle obtained by infusion from the entire roots, as well as from their component parts, the wood and the bark, was above twice as great as that obtained by decoction; but with the East Indian sarsaparilla, which contains a larger proportion of starch, the products were nearly equal. The decoction has the further disadvantage, that it loses the volatile principle, and, as Mr. Battley observes, 'with a very trifling addition of useful matter, it takes up the starch,' which is dissolved only at a temperature exceeding 140 deg., and 'which renders medicine incapable of long preservation.' On five different kinds of sarsaparilla, respecting which he has published a most instructive paper, the average loss, by evaporation, on 1 lb. was 3 ounces and 7 drachms, and the average loss of the volatile matter was 2 scruples and 15 grains.

"In the same manner it is asserted by him, that the gallic acid, the tanin, and the oxide of iron, all of which are found in good Peruvian bark, are held in solution by distilled water, which leaves a residue that is quite inert,—the ligneous parts, the albumen, and the essential oil. He states, that in 1 lb. of that bark there are not less than 3 oz. of starch, but that one ounce of the substance can be reduced to one liquid drachm, preserving all the essential qualities; and in his *Liquor Cinchonæ cordifoliæ*, which is said to be greatly superior to the sulphate of quinine, all of them appear to be happily combined, excluding the gummy matter, the gluten, and the starch, in which no active principle was discovered. The *Cinchona cordifolia*, or yellow Peruvian bark, contains an acid which is supposed to be the muriatic, while the *Cinchona lancifolia*, or pale Peruvian bark, was found by him to contain vitriolic acid, with muriate and sulphate of potash.

"His experiments induced him to believe that the active medicinal property of the *Conium maculatum* depends on a green resinous matter, possessing a highly volatile principle, which is lost by heat; and the usual mode of preparing its extract, by evaporating the expressed juice till it acquires a proper consistence, is considered by him to be obviously defective. I entertained, and on a former occasion I expressed, my confident expectation, that the constituent principles of the *Secale Cornutum* would be more fully understood when it had been analyzed by Mr. Battley; and that hope has been realized in a paper which he has subsequently published. His analysis shewed that it contained a highly volatile principle, and a large proportion of common salt, with 'a peculiar animal matter;' but he found that all its constituents, with the exception of an inert substance, were extracted by distilled water, and that 5 and a half grains of the watery extract, made by cold infusion, are equal to 30 grains of the *Secale Cornutum*, or one fluid drachm of the liquor is equivalent to one drachm of the powder of the seed. The *Secale Cornutum* was tried with great success in cases of hæmorrhage, by Dr. Negri, by our learned Professor of Materia Medica, Dr. Ryan, and also by Dr. Sigmond, whom we have to thank for a most valuable paper, which he lately communicated to us on the subject. Dr. Sigmond has not found that any injurious effects resulted from its use, which, however, he does not consider advisable when the patient is plethoric or constipated; and Dr. Spairani states, that it ought not to be given when there is active inflammation, when, as Dr. Negri thinks, it may much increase the morbid secretion of the mucous membranes, on which, in his opinion, it has a peculiar action. It appears very remarkable, that its action on the uterus should be exerted only during parturition, and, as Mr. Judd observed, that it should be of service in the suppression of the catamenia, as well as in hæmorrhages, and, to a certain extent, in leucorrhœa. Although, according to the experience of Mr. Mitchell, 18 drachms of the *Secale Cornutum* were given in 14 days, without producing any inconvenience to the patient, it is known that bread made from rye or from wheat, which has suffered from the ergot, is the cause of a disease termed ergotism, that commences with a congestive fever, sometimes followed by a gangrene of the extremities. As the *Secale Cornutum* is much employed, and is become four times as expensive as it formerly was, it would be desirable to ascertain by trials whether the *Chenopodium olidum*, which Mr. Houlton considered to have 'a very decided action' on the uterus, might not be used as a substitute, and to discover, by analysis, its constituent principles.

"The process which Mr. Battley employs, which is so simple and so successful, and which is so analogous to the operations of nature, seems to be far more useful, and to produce remedies far more salutary than those chemical decompositions, however ingenious or instructive, that have been discovered of late years."

We hope and trust that this Society will long continue its labours, and excite a spirit of investigating new remedies, and thereby enlarge our therapeutics. It affords us pleasure to state, that the institution is in a prosperous condition, and is likely ere long to render essential service to the important science it has in view.

Revue Medico-Chirurgicale Anglaise, et des Sciences Accessoires, Physique, Chimie, Histoire Naturelle, &c. Par Bureaud Rioffrey, M.D. No. 1.

English Medico-Chirurgical Review, and of the Accessory Sciences, Physics, Chemistry. Natural History, &c.

The object of this Review is to make known the real state of science in England, by presenting to continental physicians the productions of the most eminent authors in the British dominions. The productions of this country were only known hitherto by extracts and superficial notices in foreign Reviews; but Dr. Bureaud Rioffrey has determined to present them in such a form of development, as will place their merits before his foreign readers. This is a laudable and useful undertaking, and cannot fail to obtain encouragement. The number before us contains papers by Sir B. Brodie, Sir C. Bell, Dr. Bright, Mr. Hawkins, Mr. Owen, Mr. Cooke. Reviews of Pritchard on Insanity, Osborne on Dropsies, Bostock's History of Medicine, with Notices of the British and Foreign Medical Review, Lancet, Medical Gazette, London Medical and Surgical Journal, and Medico-Chirurgical Transactions. The editor displays deep erudition, stern impartiality, and extensive scientific knowledge, and his journal will be perused with interest by our foreign contemporaries. A number appears every fortnight, and may be had of Sherwood and Co.

ST. THOMAS'S HOSPITAL REPORTS.

Chronic Laryngitis.

James Hurley, æt. 26, coal-porter, admitted into Luke's Ward, Dec. 24, 1835, has been addicted to drinking, and much exposed to variations of temperature, having been a soldier in Don Pedro's service; but for the last twelve months has been employed in London. He states, that after exposure to cold about two months since, he was attacked with severe cough, accompanied with expectoration of a thick yellow phlegm, which in a few days was succeeded by sore throat and hoarseness, and these have continued to the present time. The tonsils are now rather swollen, and, together with the arches of the palate and the posterior upper part of the pharynx, have a livid appearance. He complains of pain on pressure of the thyroid cartilage. His voice is a hoarse whisper; he has still a slight cough, and is rather deaf. The skin is hot, coated with a white fur; bowels open: pulse 96, and rather full. *V. S. ad* ℥ xvi.—*Emp. Lytt. gutturi*—℞. *Pulv. Rhei e Hydr.* ℈j *stat.* —*Vin. Antim. Tart.* ʒj *Magnes. Sulph.* ʒj *ex Mist. Camph. 6tis horis sumend.*

Dec. 28—There was no remarkable alteration in the state of the blood: his bowels were freely relieved by the powder. He can now speak rather louder, and has less pain when pressure is made on the thyroid cartilage. The cough has also diminished, and his skin is moist. The tongue still continues coated. Pulse 80.

Dec. 29.—As yesterday. *Applic. Hirud.* xij *gutturi hodie et alt. dieb. repet.* ℞. *Hydr. Submur.* gr. j. *Ant. Tart.* gr. ¼ *4tis hor.*

Jan. 2, 1836.—The voice decidedly better, but there is pain on pressing the larynx. The fauces retain the appearance already noted; tongue furred; bowels open; pulse 82, and soft.

Jan. 5.—Continues improving; the tonsils are less swollen, and the fauces have a more healthy appearance. He has now much less pain on pressing the larynx, and coughs very little. Tongue coated; bowels open; the mouth has become sore. *Omitt. Hydr. Submur.*

Jan. 8.—Much the same. *Omitt. Hirud.* —*Applic. Emp. Lyttæ gutturi.*

Jan. 12.—Much better: he now speaks tolerably well, but rather thickly. Has no pain on pressing the throat, except from the soreness of the blister. The tonsils have diminished, but there is still some relaxation of the fauces; the deafness has also decreased; tongue coated; bowels open. *Omitt. Ant. Tart.—Utatur Garg. Æruginis frequenter.*

Jan. 15.—His voice has assumed its natural tone, and the throat is entirely free from pain. *Mucil. Acac.* ℥ ss. *subinde.*

Jan. 19.—Quite well, but a slight relaxation of the throat, and trifling enlargement of the tonsils remain.—Presented.

Clinical Observations by Dr. Roots.—Chronic laryngitis is a disease by no means, I think, unfrequent in this hospital; and I take the opportunity of bringing the subject before you, because it is also a disease which you will not unfrequently meet with in private practice.

With respect to the symptoms, they are most commonly these:—A hoarse, harsh, cough, occasionally almost amounting to a sort of croupy, or crowing sound; the voice, too, at the same time changes: it becomes hoarse, rough, and harsh, and as the disease advances, it is often merely a hoarse, harsh whisper: sometimes, indeed, it is quite sibilant, accompanied by a hissing sound; and there is also a hissing sound sometimes in respiration. The respiration is difficult and hurried. The expectoration most commonly is copious; sometimes it is only mucus, but as the disease goes on, it becomes muco-purulent, sometimes almost entirely purulent, and sometimes sanguine-

ous, either streaked with blood, or there is occasionally expectoration with small patches of blood. The pulse is most commonly quick; and when the disease is of long standing, it is often accompanied by great emaciation, and attended also by a considerable anxiety of countenance. Sometimes the case is attended by a very distressing perspiration. There is also commonly more or less pain in deglutition; and if you put your hand on the larynx, on directing the patient to make an effort to swallow his saliva, you notice, so far as my experience goes, that it is invariably productive of pain to a greater or less extent. I never remember to have witnessed a case of chronic laryngitis in which this symptom was not present.

From the character of the expectoration, the emaciation, the quick pulse, and the perspiration, you will see that chronic inflammation of the larynx often simulates very closely phthisis pulmonalis. How, then, would you form your diagnosis? It is of the utmost importance that the diagnosis should be correct, inasmuch as the one is a case which admits of being cured, and the other, according to our present knowledge, does not. In the first place, you would judge by the degree of resonance on percussion being natural over every part of the chest, and more especially under the clavicles on either side, the apex of the lung being the part in which, generally, tuberculous deposition commences. In addition, then, to the resonance being natural, you would, through the medium of auscultation, form your diagnosis by the state of the respiratory murmur. If the respiratory murmur was heard naturally over the whole of the chest, then you would arrive at the conclusion that the disease was situated merely in the larynx. It is often complicated, however, with bronchitis, and then you still find a good resonance, no dulness on percussion at any particular spot; but you have, to a greater or less extent over the large, and perhaps some of the small bronchial tubes, mucous, sonorous or sibilous rattle. This, again, is a condition which admits of being cured; and, therefore, you would make up your mind, under such a condition, that there was inflammation of the mucous tissue of the larynx, accompanied by inflammation of the mucous membrane of the bronchi. Not unfrequently, however, and every now and then, you see such a case in this hospital. Chronic inflammation of the larynx is accompanied by the deposition of tubercles; and I need not repeat again, that it would not be very difficult to ascertain this by finding dulness on percussion, and the absence of respiratory murmur. It is true that such a condition might perchance arise in consequence of a portion of the lung being solidified simply by inflammation; but then you would expect to find the precursory symptom, namely, crepitation. There is certainly some difficulty here; and there is also this difficulty, that in the advanced stage of tubercular phthisis, where a cavity is formed, in consequence of the patient perhaps only being enabled to speak in a whisper, it is often exceedingly difficult to find true pectoriloquy. But there is another sign which will speak as plainly as perfect pectoriloquy; namely, that though you may find all these symptoms in the first instance, and a degree of dulness on percussion perhaps still continuing, and though you may not have reason to suspect there is a cavity, and cannot find it in consequence of the absence of pectoriloquy, and from the patient being unable to speak otherwise than in a whisper, yet you find cavernous respiration, and you discover it either through the means of the voice, or the rush of air in the act of coughing; and it is most probably accompanied by gurgling. So far, I think, I have proved that it is not very difficult to form your diagnosis between simple chronic laryngitis without any disease of the lungs, or of the bronchial tubes; and when it is accompanied merely by some degree of simple bronchitis, or when it is attended, which it may be, by some degree of simple inflammation of the lung, terminating in consolidation, or when there is a cavity produced by the deposition of tuberculous matter. You are to remember, with regard to the character of the expectoration, that in many instances it does not aid you much in respect to the diagnosis, excepting that you will find this wanting—and which is not always to be found even after the most careful examination of the expectoration in tubercular phthisis, unless it be in the earliest stage—namely, you find no flaky matter, but you find it sanguineous, or muco-purulent, or perhaps as nearly purulent as possible.

What are the changes which chronic inflammation produces in the laryngeal membrane? Sometimes there is merely a congested state of the blood-vessels: sometimes the membrane is considerably thickened; sometimes it is not only thickened, but apparently hardened; sometimes it is found studded by tubercular, rough, warty excrescences; but perhaps the most common termination of chronic inflammation of the larynx is in ulceration. Occasionally you may find perhaps only one ulcer, and that of considerable size; and again, you may often find many ulcers. There is no part of the larynx in which ulceration may not take place: it may be about the rima glotidis, or even the epiglottis, about the chordæ vocales, about the ventricles, and the angle formed in front by the sides of the thoroid cartilage and the mucous membrane, and between the arytænoid cartilages. With respect to the softening of the membrane, I do not believe that this is a condition which

does frequently take place: perhaps it may have arisen from a want of tact on my part in examining it, but I confess that I have not often seen it. Andral says he has seen more than one example of the loss of voice, or, at all events, great hoarseness: where this was the case, nothing else being capable of detection but softening of the membrane. I confess I know not of any diagnostic sign by which you can determine, during life, whether the membrane is either softened or hardened.

With respect to the treatment, it must, to a certain extent, be antiphlogistic. In many instances you will find it necessary, perhaps once or twice, or even oftener, to take blood from the arm, of course being guided by the degree of the power of the patient, by the period during which the disease has existed, and, of course, by the state of the constitution. Local bleeding you will always find necessary, except in those cases in which it is about to terminate fatally. Counter-irritation by means of blisters, by the rubbing in perhaps of tartar emetic ointment, or, what I prefer, croton oil, will always be attended with advantage. Do not, however, rely too much upon counter-irritation, but take your guide from the degree of pain that is produced upon pressure over the larynx; and if you find it still continue, repeat the counter irritation again and again; and notwithstanding you thus employ it, repeat again and again your leeches. I have said I prefer the application of croton oil liniment to the tartar emetic ointment, and certainly in private practice, and more especially in females, I would advise you always to use it in preference. It is quite impossible to state what degree of inflammation may follow some of the pustules which the tartar emetic ointment is capable of bringing out. I remember myself having great occasion to regret using it in the case of a delicate young lady of about sixteen or seventeen years of age, where, in consequence of some negligence after a very large pustule had formed, the ointment was still applied over it, and a slough took place, and though she recovered from the inflammation of her larynx, yet she will carry to her grave a cicatrix of a most unseemly character. In parts which are not visible this is not of much consequence, but I am quite sure that though she may feel grateful to me for having relieved her from the disease under which she suffered, yet she will always entertain some unpleasant feeling towards me when she looks in a glass and remembers that this cicatrix was caused by something I ordered.

So far with respect to the local treatment: next as regards the use of internal remedies. I believe the best medical means of combating chronic inflammation of the larynx is to be found in mercury—mercury, not given to such an extent as to produce immediately its specific influence, but in such moderate repeated doses as may be sufficient perhaps in a few days, or a week, to produce ptyalism, at the same time just maintaining its influence upon the system so long as you may consider that some degree of activity still exists in the inflammatory condition of the membrane.

In conjunction with mercury, I believe that nauseants are sometimes of use, and the best nauseant, I think, is antimony. You may give two or three grains of hydrargyrum c. cretâ, with a quarter, or a sixth of a grain of tartar emetic three or four times a day; or half a grain of calomel, instead of the hydrargyrum c. cretâ, in conjunction with a small quantity of antimony: this, I believe, is the best medicine that you can prescribe. And to remove the irritation of the larynx, which is sometimes, indeed most commonly, exceedingly distressing, you will find it useful to combine the mercury and antimony with some narcotic; generally speaking, a small quantity of opium will be the best, but if there should be a habit of great constipation about the patient, then you may perhaps avoid the opium, using instead a small quantity of henbane. I prefer giving opium, and for two reasons: first, to allay the irritability in some measure of the membrane, and to allay the frequent coughing, which, of course, tends still further to increase the irritability of the membrane; and in the second place, to prevent the mercury from running off by the bowels. I am not quite so satisfied with respect to the advantage to be derived from ipecacuanha. I do not think ipecacuanha is capable of producing a considerable degree of irritation in the pulmonary tissue. In some cases of chronic cough, attended by great debility and by great relaxation of the bronchial membrane, I can understand ipecacuanha, acting as a stimulant to the membrane, may be productive of great advantage, just as in chronic inflammation, inflammation of a passive character, of the mucous membrane of the eye, a stimulant is necessary in order to restore it to its healthy condition. But the disease of which I am now speaking is of that character in which a stimulant would do no other than harm; and I have seen several instances where, even in perfect health, the accidental inhalation of an atmosphere at all impregnated with ipecacuanha has produced such excessive irritability and such excessive excitement to the whole of the air-passages, as to demand—in one instance more especially—the most prompt treatment for its relief. I remember that in the case of a late apothecary to the Carey Street Dispensary, I had myself, on more than two or three occasions, to abstract from twenty to thirty ounces of blood from the arm, simply from his having been exposed for a few seconds to the atmosphere of the Dispensary impregnated by

ipecacuanha, which an apprentice had been employed in powdering and sifting. I may be wrong, but such is my impression of this remedy. However, if the inflammatory condition of the membrane has assumed that character in which you think a stimulant can be borne, then I would give either ipecacuanha or squills.

If you believe any thickening or any induration has taken place in the membrane of the larynx, then I should say that iodine may probably be used with advantage. This may sometimes be manifested by a considerable degree of hoarseness remaining, by some degree of uneasiness, not positive pain, and rarely any coughing, but still a degree of uneasiness about the larynx, the patient feeling husky in the throat, and endeavouring frequently to clear it by coughing. This is a condition which I have seen in more than one instance remaining after all inflammatory action had been subdued; and I remember it occurring in a female, two or three years ago, in Elizabeth's Ward, in whom certainly benefit appeared to be derived, and the voice was rendered eventually perfectly natural, by rubbing in constantly upon the larynx iodine ointment. Supposing that chronic inflammation had terminated, as Andral says on one occasion it did, in softening, and which, I presume, you can only imagine to be the case by there being a general want of tone about the system, then I can conceive that the exhibition of some preparations of iron might be attended with advantage.

You must recollect that, even in every case of chronic inflammation of the larynx, there is considerable danger at times to be apprehended from the excessive irritability of the membrane being likely to produce, suddenly, suffocation, from bringing on spasm of the muscles of the glottis. I wish to put you on your guard, for you might say, "This is merely a case of simple chronic inflammation of the larynx," and not be aware that such a circumstance had occurred every now and then as the supervening of a sudden spasm of the glottis producing suffocation.

I have spoken in praise of the exhibition of mercury in this condition of the laryngeal membrane, but I am presuming the case is unconnected with any tuberculous deposition in the lungs, and I am presuming also that it is unconnected with any strong degree of scrofulous taint in the system. If it be accompanied by a considerable strumous tendency, mercury, in that case, will do harm, and you must then rely upon moderate local depletion, counter-irritation, and the use, perhaps to some extent, of nauseants; but remember that you will speedily have to support the patient's constitution, notwithstanding you are employing these means, otherwise the patient will sink.

The case preceding these observations was treated precisely upon the principles I have now laid down, and marked improvement took place as soon as the constitution became under the influence of mercury, and the inflammatory action had been lessened by one general, and several local bleedings.

OBSERVATIONS ON VACCINATION, BY A NATIVE INDIAN.

We extract the following remarks from a well conducted periodical now published in India, and wish it every success:—it is the India Journal of Medical Science.

"I have attentively perused the 'History of the Cow Pox,' contained in the accompanying (Plumbe's) work on Vaccination which you did me the honour to hand to me, some months ago, for the purpose of making my remarks on the same, as well as on your valuable report on the present state of Vaccine inoculation in Bengal, and have found that Dr. Jenner's experiments and remarks, as stated in the work in question, are simple and satisfactory, and have therefore no hesitation in recommending their insertion in the second edition of your report, and its translation into the vernacular language for the use of the native practitioners.

"The substance of the history alluded to is, that about 64 years ago, or in 1768, Edward Jenner was aware of a distemper named Cow Pox, which infected the teats of milk cows, and equally the hands of the milkers; that from various incidents he was enabled to draw this conclusion, that it was a peculiar property of the cow pox to prevent any infection from the small pox; that it might be possible to propagate the cow pox by inoculation, not only from the cow to the human subject, but also from man to man; that in 1796 'he had acquired a correct knowledge of the appearance of the malady, and selected a healthy body to make the first trial of inoculating one human being from another with the cow pox virus; that in 1798, being satisfied with the result of his experiments, he resolved to lay them before the public, and that Mr. Cline made his first trial with the vaccine virus in St. Thomas's Hospital.'

"Although the inoculation by the natural pock has been known to the natives of Bengal from time immemorial, long before Dr. Jenner made known his theory, yet this peculiarity in the cow pox as a preservation from small pox infection was totally unknown to them until of late, nor had they ever used the vaccine lymph on any occasion, for this reason, because when the disease becomes common amongst cattle, which it does at certain seasons of the year, cows scarcely escaped it, and moreover, they were ever averse, from nature or the prejudices of caste,

to insert the purulent matter* from the body of a beast into that of a human being, and therefore they particularly abominate the vaccine virus to the present day, and are very far from being made easy converts to the vaccine philosophy. Following the examples of their predecessors, their prejudices cannot, I imagine, be easily overcome in this respect; while doubts still exist even in Europe whether the prevention be finally established, as the author of the History of Cow Pox observes, that 'the friends of vaccination sleep, but its enemies are wakeful and active; and with shame be it spoken, they have enrolled themselves even in the ranks of that profession to whom Providence has condescendingly given the greatest power and influence in its support and propagation.'

"The religious prejudices of the natives respecting vaccination might perhaps be abated, if the subject be properly explained to them, and its advantages pointed out, with some comments calculated to remove even their religious aversion to drawing matter from an incision on the corpus sacrum; so that although the slaughter of such animals as cows, and the consumption of their flesh in this Calee age are prohibited, and severe penances prescribed by the 'Hindu Shasters' or laws, yet it is also strictly enjoined that every substance or matter derived from the cow is to be esteemed pure and holy to the degree that even its animal putrescences are not to be abhorred, consequently no objection can be admitted for the use of vaccine matter, which is equally so derived, or make the case less objectionable, even if they may get their children vaccinated by their own Tikadars, and worship the goddess 'Setula' and live with the same care and abstinence which they would observe in the use of the natural pock, till the recovery of the patients be effected; but their country customs and family usages being dictated by their religion, are so cemented within their breasts, that they cannot be altered without great difficulty.

"With respect to your report, the chief causes of the slow progress of vaccination in this country, as pointed out by Dr. Shoolbred, and cited by you, are just and proper; but the only reason I can assign is, that the natives of this country, particularly the Hindus, are so addicted to religious prescriptions (which connect their moral and physical obligations), believing them to be the best and primary above all, as observed by the sages from time immemorial, that they cannot but regard every example of deviation from them or their ancestors, whom they consider to have been more civilized, enlightened, and learned than themselves, as highly criminal; wherefore, they are indifferent to any improvement to which their religious usages do not conform, which is the case with every proposition of the moderns. They disregard the advice and publications, particularly from foreigners, whom their females know nothing of; these females, presiding over many domestic concerns, are always averse or afraid to introduce any new practice not within the limits of their own understandings. The coercive and compulsory measure which, in the first instance, was adopted against the small pox inoculators for introducing the practice of vaccination, induced many to quit the presidency; hence the respectable native inhabitants of Calcutta sent their children to the interior to have them inoculated, and a few of the lower classes were vaccinated in town, in consequence of which, your expectations for the removal of the obstacles to the general extension of the practice amongst the native community, must have, I think, been imperfectly realized or much disappointed.

"The natives of this place do not admit that Calcutta, through its agency, is the great generating focus of variolous infection, from whence it spreads to every other part of Bengal, as stated by you; because this disease and their practices are prevalent every where, and has been so from time out of mind. If variola is the cause of occasional alarm, and to those who have been vaccinated, as mentioned by you, the individuals who are not friendly to vaccination might have good reason to question its efficacy in preventing the small pox.

"You have indeed formed a wise plan, to prevail on the Tikadars to become vaccinators, and to appoint them to offices under your charge, whereby they will no doubt discharge their duty with attention; but you should not recommend any compulsion or punishment when they follow their long established operation, in order to introduce a new and unexplored practice in its stead, while of the efficacy of the latter they have not yet been convinced of, as admitted by yourself.

"You further report that a few respectable natives in Calcutta have had their children vaccinated, the original cause of which I have herein before specified, and beg to propose a method of propagating the practice among them more extensively; that as the Tikadars cannot exercise any influence over them, the medical gentlemen of Calcutta may therefore communicate first with those opulent young Baboos, that are styled by Europeans liberal and enlightened, since they do not care much for their religion or ancestors, and may easily come forward to get their children vaccinated, and then go on with the Collegiates, who are

"* The worthy Baboo is mistaken: the virus or lymph of the vaccine disease is not a purulent matter or pus, but a clear transparent viscous or gum-like fluid. When the pustule, on the contrary, puts on a purulent appearance, it is a sign that it is spurious.—EDITORS."

anxious to innovate or reform them, and would perhaps readily adopt the improved practice, either now or after the demise of their old parents. You will thus succeed step by step, as Dr. Jenner did, without annoying the poor Tikadars, or the orthodox Hindoos.

"As it is mentioned in the replies of the Medical Board's circular, 'that although vaccination is not so perfect an antidote as it was once thought to be against small pox, it is at least the best that is to be had,' the enemies to vaccination might employ this deniable proof to oppose the vaccine practice by, as an imperfect antidote, and have just grounds to prefer their long experienced practice as one less defective.

"In cases of a second attack of the natural small pox proving fatal, although the patient had been deeply pitted by the first attack, which is mentioned in the letters submitted by the Medical Board, it is not a satisfactory proof in the opinion of native practitioners, who ascribe the mark supposed to have been made by the first attack, to the chicken pox, or other eruptive diseases, as they are well convinced by long experience that one who had undoubtedly had the natural small pox once, by proper inoculation or infection, is never liable to the recurrence of the malady, in consequence of which they exert themselves to induce fever and pocks after inoculating their patients, as particularized in my first letter to you. If this case be well founded in fact, a similar course might be observed in vaccination, but rare cases in either practice should not be considered universal but accidental.

"It is a favourable circumstance noticed by you, that when a most virulent epidemic of the small pox visited the city of Norwich in 1820, only two died of the small pox out of ten thousand vaccinated persons (though they otherwise appear liable to contagion,) and that the Government have been pleased to order the persons educated at the Native Medical Institution, to be instructed in the practice of vaccination, and sent to stations where the natives had previously no means of availing themselves of this blessing. The testimony you bear to the results of this experiment in Muneepore is also promising.

"A precautionary measure you recommend is, that children sent from this country should be re-vaccinated on their arrival in England, as the constitution is liable to very great modifications by change of climate; but the Tikadars assure us, and others positively declare, that the children which have properly passed through the small pox inoculation never require a repetition of the same, though they may traverse any part of the globe, for which they consider this practice more secure and salutary than any other.

"Regarding the freedom of children from all diseases before the performance of the inoculation, the specific power of the mature dry scab, the time for taking lymph, and the mode of insertion of the virus, our Tikadars quite concur with you; but the vaccine vesicle alone, without a communicating principle, so as to produce pocks on the patients, appears by no means satisfactory and unobjectionable to them, or to the parents of the children, because they affirm that the human body is subject to variola, which having been produced ever so slightly, by variolous inoculation, prevents the recurrence and infection of the disease in future; for which especial reason they prefer the small pox inoculation to vaccination.

The opinion of Dr. Thomson, annexed in the concluding part of your report, states, that the protection which vaccination affords against the fatality of small pox, is at least equal, if not superior, to that which is afforded by passing through the small pox itself, even in the natural way. The natives agree with the celebrated Doctor so far, that if the vaccinating and the passing through the natural small pox are in his opinion equal protections against the fatality of the disease, they have previously ensured similar security by adopting variolous inoculation, and thereby observed the ancient custom of their forefathers (which is incumbent on them), with a firm conviction that they had practised it with safety before all other nations.

"These are, I believe, the general opinions or prejudices of the natives of India in favour of variola, and their objections to vaccine practices. As I need not offer any remark on the documents contained in the appendix of your report, I finish this letter with esteem and regard.

My dear Sir, yours very sincerely,

RADHAKANT DEB.

Calcutta, August 13, 1835.

The London Medical
AND
Surgical Journal.
Saturday, July 23*rd*, 1836.

PETITION TO THE ROYAL COLLEGE OF SURGEONS, TO PROSECUTE A MEMBER.

We extract the following from the *Morning Herald* of Thursday week.

HOUSE OF COMMONS.

Mr. WAKLEY presented a petition from medical men of Andover, complaining that an individual (whose name we purposely omit) was practising in that town as a surgeon, he having obtained authority so to do by

means of false certificates. The individual in question, in 1833, obtained his certificate, it being requisite that he should be then 22 years of age, and having studied during six years, within such time attending certain series of lectures in London. The gentleman did produce the necessary certificates, and got regularly passed; but the petitioners declared that he had not been three months in London. Having obtained his qualification to practice, he proceeded to Andover, and was now practising there as a surgeon. They added that complaint had been made to the College; that the College had cited the individual to appear before them, but that he had disregarded such citation. The College had power to strike him off the list of Surgeons, or to issue a *mandamus*, calling upon him to show by what right he practised as a Surgeon; but they would do nothing, although there were affidavits in support of the petitioners' allegations. The law of the case was clear; it had been established by a decision in the King v. Richardson, &c.

Mr. F. Pollock said, that the law was not quite so clear. The petitioners alleged that the College had the power of making the admission null and void. The College had refused to comply with the request to do so, and that they had done so in compliance with his opinion, which opinion he had shown to the honourable member; but it was not true that the College had refused to adopt proceedings. They had appealed to the Council appointed by the College; and the Council in their own inquiries, and aided by counsel's opinion, had deemed it imprudent to take further notice of the petitioners' application. Be it remembered, that there was not the least pretence that the gentleman in question was not qualified; no one alleged that he was unable, or unskilful; and such being the case, he could hardly help suspecting that the other gentlemen of the profession in the same town were more concerned about the extent of practice possessed by the party complained of, than about the violation of the rules of the College. How the gentleman had studied he knew not, but he was authorized to say, that in his examinations he had given complete satisfaction. After he passed, a question arose at Andover, whether the gentleman could have been absent from that place long enough to enable him to attend the lectures, &c. He (Sir F. Pollock) had carefully examined all the circumstances submitted to him by the College, and the affidavits, &c., of the petitioners; and he had deliberately advised that they ought not, and could not, safely expel the gentleman in question. Affidavits might present a very different case from what would be obtained on a cross-examination before a jury. One affidavit said that the gentleman had never been absent from Andover more than six or seven days at a time; but it said nothing about how often he was absent. There was nothing to establish that he might not have been able to attend. Had the complaint been preferred before the gentleman had passed, then inquiry on the subject might have been instituted; but as he had been admitted, on complying with all the forms, and producing all the requisite certificates, the College could not consent to put the individual on his trial on suspicion, and proceed to expulsion.

Mr. Wakley contended that every man was put on his trial on suspicion.

Sir F. Pollock: No; there is the intervention of the Grand Jury.

Mr. Wakley maintained there were good grounds for suspicion, and for calling on the gentleman to show that he had really complied with the forms, and had really attended as required. The Council might have advised against further proceedings, because they were in some degree involved, having signed the certificate which enabled the gentleman to pass, testifying to attendance that had never been bestowed. Some other course would be adopted—the case would not rest here; the right of the individual to practice, not having complied with the forms, to the prejudice of those who had, must be tried.

Petition ordered to lie on the table.

The facts embodied in this report are of the greatest importance to the profession—particularly to the junior branches of it. The question of greatest consequence is, whether the College have or have not power to prosecute the offender. We are inclined to agree with Sir F. Pollock, that at all events it would not be advisable for them to do so. The examination at the College either is, or is not, a test of the knowledge of the candidate for a diploma. If it is a satisfactory test, and this gentleman has passed with honour, would it not now be useless to enter proceedings against him? As to his non-attendance on lectures, it would be a difficult thing to be able to prove such fact distinctly. Besides, those who are acquainted with these matters know that a very rigid attendance on lectures is not observed even by the most industrious pupils, and many of them, it is well known, are remiss in their duties. However this may be, it is quite certain that the proper time for the enquiries respecting a defaulter in lec-

ture attendance, is *before* he passes the College. Certainly, if the College do not institute a proper examination into the certificates, and their correctness, at the time they are sent for inspection, there is a gross violation of their duty. But should they make these inquiries and be satisfied, why, then, if they examine the individual, and pronounce him competent, it is too much to expect them to contradict themselves. If a fault rested on any one besides the gentleman who obtained the certificates improperly—if they were so obtained—it would rest more with the teacher from whom he obtained them than with the College.

As to whether the examination at the College be a test of the competency of a surgeon to practice, that is a question totally irrelevant to the present case, and certainly does not in any way affect the gentleman who is charged as above. But, as we have before said, if it be a test—and there is no other to judge by—why, then, we think the College will do well to let the matter remain as it is.

It must be remembered, that in this case the individual against whom the charge is made, is not accused of any want of skill; he is not charged with ignorance or inhumanity; probably, as Sir Frederick Pollock justly observes, it is the amount of practice he has obtained which annoys the petitioners.

It must be understood, that in offering these remarks we do not sanction the fraudulent obtainment of certificates. Where there are forms to be gone through by one, they should be gone through by all. But when we consider the extreme difficulty of proving the attendance or non-attendance of students on lectures; when we are told that this gentleman passed a most satisfactory examination; and that so eminent a lawyer as Sir F. Pollock has recommended the College not to adopt any proceedings; we think it is better to allow the matter to remain as it is.

We are not friends to prosecutions of this description, the motives that originate them being generally very far from disinterested or praiseworthy. It will be remembered that in the evidence given before the Parliamentary Committee respecting the Apothecaries' Company, that it was elicited that prosecutions generally were instituted against infringers of the Apothecaries' Act, more from the extent of their practice, than for their want of education or skill.

Precedents, too, of this description would be highly dangerous, and lead to results of the most unfortunate kind.

We were rather surprised to see the honourable Member for Finsbury presenting such a petition. He has long contended that knowledge is the same wherever acquired, whether by attendance on lectures or not; so that, if the individual passed a proper examination, he ought to be allowed to practice. Surely he has departed, in this case, from his usual consistency. We shall have more to say on the subject next week.

RESIGNATION OF DR. QUAIN.

As yet, nothing authentic has transpired respecting the cause of the resignation of Dr. Quain. A meeting of students was held on Tuesday, in the Anatomical Theatre of the University, for the purpose of considering the most proper manner of shewing their respect for the talents and acquirements of their late teacher, and their regret at his resignation of his office. A series of resolutions were passed, in which it was decided that Dr. Quain be requested to sit to some artist of his own choice, for his bust, to be placed in some conspicuous part of the University. For farther particulars we must refer to the advertisements.

ULCER OF THE PYLORUS.

On Wednesday the 6th of August, about 7 o'clock in the evening, I was requested to visit Mr. M—— as soon as possible, he having been taken seriously unwell.

Upon inquiry, it appeared that he had not felt well for several days, and complained of a peculiar sinking sensation in the stomach, as if (as he expressed it) his stomach was quite gone, and sometimes he felt as though a heavy weight was pressing upon it: that when walking in the verandah he was seized with a sudden severe pain, accompanied with a sensation as if something had burst, or given way, in or near his stomach, at which time it appears he fell down. He said he was convinced that an abscess of the liver had burst internally, and that he should never survive it. He was in a cold sweat, pulse very small and feeble, countenance pale and anxious, with great restlessness, a dreadful weight at his stomach, with an inclination to vomit, but unable to get any thing up; had taken a glassful of warm water to encourage it. Boiling water being at hand, hot fomentations were immediately applied to the region of the liver and stomach, and I set off for a supply of leeches; the feeble state of his pulse, and nearly exhausted state of his system generally, precluded my taking blood from the arm. About a quarter of an hour after my arrival he vomited twice; each time about half a pint, of dark brown fluid, as if tinged with blood, and flakes of what appeared thick matter or pus floating in it; which led me to suppose that Mr. M.'s opinion might be correct as to the bursting of an abscess of the liver. After this his stomach appeared more settled, and I gave him 10 grains of calomel, and a draught of camphor mixture containing 45 drops of laudanum; the leeches also arriving at this time, 40 were applied to the hepatic region, the seat of pain. Ten o'clock: After the leeches had been applied a short time, he complained of feeling very weak and faint, and as his pulse had become more feeble, I was under the necessity of removing them immediately and staying the bleeding. From this time to 12 o'clock no favourable change took place; for though he said he felt the pain less severe, still the anxiety and restlessness continued; requesting occasionally to have a cup of warm tea, or a glass of camphor mixture. About half-past 12, I repeated the 10 grains of calomel, and a draught with 35 drops of laudanum, after taking which he said he should like to endeavour to get a little sleep. He continued to doze, and had some disturbed sleep; and about half-past 2 o'clock he awoke, and expressed a wish to sit up in bed, which he did for about five minutes, when he became very restless, saying he felt himself getting worse, and felt assured that he should not live till daylight. As his bowels did not appear at all affected by the calomel, an ounce of castor oil was given, which he retained though he was afraid it would make him sick. He continued to doze, occasionally asking for a little warm tea, till day-break; and as the castor oil did not appear to be acting upon the bowels, I went about 5 o'clock to the hospital for an enema syringe, and to prepare a purgative mixture, pills, and a blister: the mixture of Epsom salts and infusion of senna I immediately dispatched, with directions for a large wine glassful to be taken every hour till the bowels were purged. During my absence he felt himself worse, and directed Mr. Lang to send for me. He took a dose of the aperient medicine immediately on its arrival; and on my return he appeared in great distress that the medicine did not appear to act on his bowels, and was convinced that something serious had happened to his stomach, as his bowels were always very easily moved: he took another dose of the mixture, and washed it down with some tea; he also expressed a wish occasionally to have a little soda water, which he was allowed to take during the night; said it was all useless, as what he took he felt go down to the bottom of his belly, and it did not appear to enter his bowels: two purgative enemas were afterwards administered but without success, and they were returned without bringing any thing away. From this time (9 o'clock) he became gradually worse, and expressed his conviction that he was in a dying state. He refused to take any more medicine, and also some warm wine and water, which was recommended, and had been, frequently during the night, he being in a cold sweat and his pulse scarcely perceptible. He continued to become weaker from 9 to 11, with occasional fits of hiccup with cold sweats, very restless, and countenance extremely anxious. About 11 o'clock his breathing became stertorous, with frequent deep sighing and hiccup, pulse scarcely perceptible at the wrist; from 12 o'clock he continued to sink very fast, becoming comatose, the eyes closed, breathing short and stertorous, and died about a quarter to 1 o'clock, P.M.

Post Mortem Examination 24 hours after death.

Abdomen in a state of great inflation; and on perforating the peritoneum, a strong gust of highly offensive air was expelled. On laying open the peritoneum along the whole length, a large quantity of dark brown fluid (say two pints) appeared diffused among the intestines, which, upon being collected and examined, appeared to be the contents of the stomach, with the castor oil floating on the surface. The stomach still continued in a state of great inflation: however, on carefully drawing out the pyloric end from under the left lobe of the liver, another gust of fetid air burst out of a small orifice discovered on the outer front surface of the pylorus, from which some fluid, still remaining in the stomach, continued to escape. On minute examination, the coats of the pylorus, at its junction with the duodenum to the extent of about two inches, were very

much thickened, and the passage so contracted as to be rendered nearly impervious:—the ulcer was situated just at the edge or commencement of the contraction, on the front outer surface of the pylorus. On turning up and examining the under concave surface of the left lobe of the liver, the part in contact with and resting upon the pylorus where the ulcer was situated, appeared quite livid, and in a sphacelous state. The ulcer was of an oval shape, with regular round thickened edges, and was large enough to admit easily the little finger: on pressing the stomach, the air and a little fluid, which still remained, continued to escape from the ulcer. No disease appeared to exist in any other part of the stomach. The right or large lobe of the liver was reduced in size, and much smaller than natural; the substance was of a dark blue slate colour, with great congestion; there were no adhesions, though nearly the whole convex outer surface, from the lowor thin edge upwards, was covered with a deposition, elevated above the surface, apparently ulceration, the effect of long continued chronic inflammation; the substance of the right lobe generally was in a state of great disease. The left left lobe had a very different appearance to the right, being of a yellow or buff colour on the outer convex surface, and appeared much larger than natural; the under concave surface had assumed a dark livid colour, and appeared in a sphacelous state. The gall bladder was nearly filled with pale yollow bile. The omentum and whole surface of the peritoneum lining the abdomen, in a state of high inflammation, and the vessels of the former gorged with blood; the outer peritoneal coat of the intestines in a state of general inflammation; the bowels were inflated with air, but otherwise quite empty; the lungs appeared in a perfectly healthy state.

It appeared that Mr. M. had frequently complained of a peculiar sinking sensation in the stomach, from which he had suffered previous to the last fatal attack; during the last three days he felt, he said, as if his stomach was quite gone, and occasionally as though a heavy weight was pressing upon it. I am of opinion that inflammation had been going on for a long period of time, and that during the process adhesion had formed between the under concave surface of the left lobe of the liver and that part of the pylorus on which the ulcer was situated, which parts would naturally be in contact. On the night of the attack, these adhesions giving way during the act of falling, or the effect of vomiting, the contents of the stomach made their escape into the abdomen, for, as he expressed it, he felt as if something had given way in his stomach; and was convinced that an abscess of the liver had burst internally, that some fatal occurrence had taken place, and that he should never survive it. He mentioned having taken occasionally blue pill over night, with a purgative the following morning, which, with starvation for a day or two, he said, generally relieved him. He had taken no solid food during two or three days; and from the appearance of the ulcer, which I think had existed some time, I am of opinion that had he taken a full meal the fatal occurrence might have taken place earlier, the adhesion to the under surface of the liver having alone been the means of preventing it. From the exhausted state in which I found Mr. M. on first seeing him, in a cold sweat, with scarcely any pulse at the wrist, and a countenance of extreme anxiety and restlessness, with an insupportable weight and oppression at the stomach, exclaiming, "What can have happened? I never felt such a sensation in my life; I am sure I shall die"—I was led to fear that some serious injury had occurred, and the very unfavourable change which subsequently took place convinced me that nature had suffered a fatal and irrecoverable shock; and the circumstance of finding the contents of the stomach, the senna mixture and castor oil, diffused among the intestines in the abdomen, evinces that any measures adopted for the relief of the patient in the present melancholy case must have proved alike unavailing.

BEN. WILSON,
Assistant Surgeon, 31st Regt. N. I.
—*India Journal of Medical Science.*

Hospital Reports.

NORTH LONDON HOSPITAL.

Sinus round the Anus.

JOHN SHEPPARD, aged 40, a servant, was admitted on the 8th of March under the care of Mr. Liston. Four months ago a swelling of the size of an egg formed at the right side of the anus, accompanied with considerable pain. Poultices were continued for three weeks, when the parts were lanced, and a large quantity of pus evacuated. It has continued to discharge to the present time. There is now a large sinus extending from the margin of the anus to a considerable distance upon the buttock.

℞. Ol. Ricini. ℥j. statim.

March 9.—Mr. Liston, with a probe-pointed bistoury, laid open the sinus in its whole extent, dividing also the edges in several directions. No communication could be detected with the rectum.

Warm water dressing.

March 14.—The part appears to be granulating favourably: some discharge of healthy pus.

Ol. Ricini, ℥j. pro re nata.

March 22.—The incisions previously made

have in many parts united, leaving a cavity beneath. Mr. Liston divided them freely again with a sharp-pointed curved bistoury, and desired lint to be kept between their surfaces.

March 30.—Healing favourably—Red wash to be applied.

April 4.—The wound looks healthy, and is healing slowly. To get up—full diet.

April 11.—The surrounding surfaces are becoming adherent, and are beginning to cicatrize.

April 27.—The lower and depending part of the sore forms a pouch from the sinus, the surface having united. This Mr. Hodgson laid open with a bistoury.

May 6.—The sore is gradually healing, the granulation springing from the bottom, and the edges cicatrizing.

May 15.—Sore looking healthy, but the process of union is very slow. Mr. Liston desired the surface to be touched with caustic every alternate day, and water dressing to be applied. Has been complaining of bronchitis, and much relieved by a blister, and saline diaphoretics.

June 1.—Under the use of the nitrate of silver the sore has gradually diminished in size. The edges are now adherent, but a small chink remains in the fold of the nates.

June 18.—Wound nearly healed. Has since been discharged well.

STUDY OF MATERIA MEDICA.

It is agreeable to reflect on the increased and increasing opportunities afforded to students of physic, of making themselves familiar with the drugs they will afterward have daily to prescribe. A museum of Materia Medica has been recently established by the Royal College of Physicians, Edinburgh; and the object, as stated in the Edinburgh Medical and Surgical Journal, is to have a complete collection both of the ordinary and more rare articles employed in medicine. The College invite professional men and naturalists in the colonies, and other favourable situations, to add to their specimens: and we hope the invitation will be attended to. Looking back some twenty years, one can hardly now believe that students of old might pass through their curriculum, and take a medical degree, without having ever seen any of the articles of the materia medica, and without knowing one article from another. This is certainly one of the improvements of late years. We presume the Museum in the Edinburgh College of Physicians will be accessible to teachers and students; without which the collection will do little more than serve the purpose of idle display.—*British and Foreign Medical Review.*

BOOKS.

A Treatise on the Physiologyand Pathology of the Ear, containing a comparative view of its Structure, Functions, and various Diseases; Observations on the Ganglionic Plexus of Nerves, as the cause of many obscure Diseases of the Ear; together with Remarks on the Deaf and Dumb. Sixth Edition. By John Harrison Curtis, Aurist in Ordinary to His Majesty. 8vo. pp. 261. London, 1836. Longman & Co.

The Speculum applied to the Diagnosis and Treatment of Organic Diseases of the Womb: an Inaugural Dissertation presented to the University of Glasgow, for the Degree of Doctor in Medicine. By John Balbirnie, A. M. pp. 335. Longman & Co.

This is a valuable work, and one that will establish the use of the Speculum in uterine diseases—a means of diagnosis as important as the Stethoscope.

A Concise Description of the Arteries of the Human Body, together with full Directions for cutting down upon, and securing the several Arterial Trunks; for the use of Students in Anatomy. By P. Bennet Lucas, M. R. C. S. London and Dublin, Lecturer on Anatomy and Physiology, &c. 12mo. pp. 116. London, 1836. Longman & Co.

A work that ought to be in the possession of every surgeon.

Errata in Dr. Hancock's Papers in this Volume.

P. 622, line 28, for *collation*, read *colation.*
— 623, — 23, for *lucas*, read *lucus.*
— 623, col. 2, l. 40, for *external*, read *internal.*
— 727, line 27, for *professor*, read *professors.*
— 728, — 28, for *effective*, read *ineffective.*
— 728, — 51, for *pound*, read *half pound.*
— 749, — 14, for *diameter*, read *circumference.*
— 750, — 16, for *six of spirit*, read *six ounces of spirit.*
— 750, — 24, for *physical*, read *physiological.*
— 750, — 26, for *tumbling*, read *rumbling.*
— 750, — 45 and 46, read, "there is not only excitement of the skin, but also in some degree of the whole intestinal canal."

It should also be added, that the same tincture, given as above, has been found a very useful auxiliary in the treatment of Lepra arabum—*cocobae* of the Africans—in conjunction with vapour baths, antimonials, &c. This plant contains much caoutchouc or elastic resin; its virtues are therefore more perfectly given out by an ethereal or strong alcoholic menstruum.

MANCHESTER MEDICAL SOCIETY

THE

London Medical and Surgical Journal.

No. 27. SATURDAY, JULY 30. Vol. I.—(1836).

REPORT
OF THE
QUEEN'S COUNTY INFIRMARY
For the Year 1835.

BY JOHN JACOB, M. D.,
Surgeon to the Institution and to the Maryboro' District Lunatic Asylum.

(*Read at a Meeting of the Dublin Surgical Society.*)

This Infirmary, for the excellence and utility of which the county is much indebted to the zealous exertions of Thomas Parnell, Esq., was first opened for the reception of patients, under the care of my late father, in 1808. It is situated within a quarter of a mile of the town of Maryboro', and is adjacent to the District Lunatic Asylum and County Gaol. The plan of the building is well suited for the purposes intended, ample provision having been made for the comfort of the inmates, as well as for the most thorough ventilation and cleanliness. It consists of basement and first and second stories, each traversed from end to end by a spacious corridor, from which the several apartments open to the right and left. The centre is occupied by two airy stone staircases, which afford separate access to the rooms occupied by males and females. The wards are eleven in number, thirteen feet high, and sixteen feet square, with a ventilator in the ceiling and over the door. There is a commodious bathing-room, where the patients are cleaned and clad in the dress of the Institution previous to their distribution in the several apartments. Each story is provided with an abundant supply of spring and river water, and with water-closets.

The business of the institution is transacted by the treasurer, who acts gratuitously; the surgeon; the secretary, who performs the duties of providore and house-steward; the housekeeper; a female nursetender; a male nursetender, who acts as barber, and performs other duties; a porter; three female servants, and a man who acts as janitor, whitewashes, and assists in cleaning. To provide for the more close and constant attendance on the sick, any patient who may be very dangerously ill, or require extra attendance, is permitted to bring in a female relative for the purpose: an arrangement which does not entail any extra expense, and is attended with the best effects in assisting to remove prejudice from the minds of the country people, and in overcoming the disinclination to leave their families, which some entertain. Each case is given in charge to one or other of my apprentices, whose duty it is strictly to watch over it, and inform me of any circumstance with which I should be made acquainted. The house is never left without a pupil when there is any case of urgency, which is so general that I may say the practice is constantly observed. I visit every day, and when occasion requires, twice, or more frequently.

The funds for the support of the Institution are derived from a parliamentary grant of 89*l.*; a presentment of 554*l.*, raised by county rate; subscriptions and donations, which for the past year amounted to 180*l.*; and fines for certain offences imposed by magistrates at petty sessions, amounting within the same period to 155*l.* These, with contingencies, produced a total income for the past year amounting to 993*l.*

The charity is directed and controlled by 152 governors, who hold quarterly boards, and appoint a managing committee to meet weekly: thirty-four meetings were held within the past year. The payment of twenty guineas constitutes a governor for life: of one guinea, for twelve months; and the regular payment of the annual subscription for ten successive years, also confers the privileges of a life governor.

It may be observed that the annual subscription is in this county, Dublin, and Tipperary only, as low as one guinea: in all other parts of Ireland the law has established it at three guineas. Many advantages appear to me to result from the adoption of the lower rate. It operates beneficially upon the funds, at least so I am led to conclude from the fact that a larger amount is received under the head of annual subscriptions in this county and in Dublin, than in any other county in Ireland. It

affords to every individual who may feel interested in public charity, or in the welfare of the poor, an easy opportunity of taking part in the direction of the Institution, and it tends strongly to satisfy the public that the monies levied by taxation for its support are disbursed to the best advantage. In a word, if the corporation be not open, and its affairs well managed, the fault rests entirely with the public. I cannot help here alluding to the painful contrast existing between the niggard amount of the subscription lists in this, as compared with the munificence of the sister country. It is a humiliating fact that several proprietors of extensive landed property in the county either withhold all support, or bestow but a solitary guinea annually upon the charity, which is principally maintained by county cess, levied off their impoverished and already over-burthened tenantry. Nor is this attributable to apathy or want of due exertion on the part of those who should endeavour to excite the sympathy of the wealthy in its favour. Every means calculated to effect this object have been had recourse to — Charity sermons, bazaars, advertisements, &c.—and with some those have not had such an effect as might have been hoped for.

It has been already stated that the income of the Infirmary for the past year amounted to 933*l*., the expenditure to 900*l*. For this sum an average of 49¾ intern patients have been maintained throughout the year, amounting in all to 957, of whom 40 were in the house at the commencement of the year, and 917 subsequently admitted. 11,382 dispensations of medicine and advice to extern patients also took place within the same period. The following table presents a view of the several diseases under which those admitted into the Infirmary laboured. Allowances will, I trust, be made for its imperfections by those who recollect the difficulties attendant on the classification and arrangement of such an heterogeneous collection.

Fever, continued 8; remittent 1; intermittent 4; scarlatina 1	14
Headach 9; hemicrania 1	10
Inflammation of brain and membranes, acute 4; chronic 3	7
Insanity	2
Change of structure in brain	3
Paralysis, including hemiplegia and paraplegia, 12; of deltoid muscle 3	15
Hysteria	6
Trismus nascentium	1
Chorea	2
Spasmodic affection of diaphragm	2
Neuralgia of side 1; of shoulder 1; sciatica 4	6
Heart, palpitation of	7
—— hypertrophy of, 2; hypertrophy, with diseased aortic valves, 1	3
—— dilatation of	1
Purpura hæmorrhagica	3
Epistaxis	1
Anæmia	1
Throat, inflammation of, suppurative 5, ulcerative 7; sloughing 2	14
Aphthæ	1
Croup	4
Bronchitis	5
Hooping Cough	3
Pneumonia	3
Hæmoptisis	8
Phthisis	5
Empyema	1
Pneumothorax	1
Œsophagus, stricture of	1
Gastritis	2
Dyspepsia, in aggravated form	18
Gastrodynia	3
Stomach, organic disease of	13
Hæmatemesis	5
Obstinate constipation	3
Enteretis	3
Intussusceptio	1
Dysentery, acute 3; chronic 6	9
Peritonitis, acute 2; chronic 1	3
Jaundice	4
Liver, inflammation of, acute 2; chronic 1	3
—— enlargement of	7
Spleen, enlargement of	2
Abdominal tumours	5
Mesenteric glands, extensive disease of	3
Dropsy, general 9; anasarca 11; ascites 18; hydrothorax 1; hydrops pericardii 1	40
Bladder, inflammation of	1
——— catarrh of, with irritability	5
Urine, suppression of	2
Dysuria	3
Diabetes	3
Amenorrhœa,	4
Chlorosis	3
Leucorrhœa	1
Uterus, irritability of	1
——— hæmorrhage from	2
——— acute inflammation of, terminating in abscess	1
——— enlargement of	3
——— polypus of	2
——— prolapse of	2
——— cancer of	3
Ovaries, disease of	3
Rheumatism, acute 6; chronic 13; lumbago 3	22
Inflammation, erysipelatous, simple 3; gangrenous 1; chronic 1	5
——————— diffuse, of cellular tissue of neck	1
——————— deep-seated, terminating in abscess of jaw 4; arm 2; hand 1; thigh 2; leg 2	11
——————— of absorbents	4
Abscess of jaw 7; neck 4; arm 3; hand 1; mamma 2; thorax 1; back 5; lumbar 9; of iliac fossa, adjoining colon 1; anus 1; hip 1; groin 2; thigh 8; knee 7; leg 4; ankle 2; foot 1	59

Gangrene, traumatic 3; sloughing of nates 2; of vagina 1; of feet 1 . .	7
Anthrax	4
Ulcer, of scalp 2; face 3; lip 1; tongue 1; palate 1; fauces 1; thorax 1; back 2; shoulder 1; hand 2; nates 4; thigh 4; knee 1; leg 55; ankle 1; feet 2	82
—— phagadenic	4
Paronychia	8
Onychia	6
Wounds, of scalp 12; face 6; tongue 1; arm 1; hand 5; scrotum 2; thigh 3; knee 6; leg 35; instep 1; feet 2 .	74
—— by stab, of abdominal cavity and liver 1; back 1; thigh 1 . . .	3
—— of radial artery 1; of tibial artery 1	2
—— gun-shot	3
—— severe bites by rabid animals	2
Pin in œsophagus	1
Contusions, of eyelid 1; neck 1; elbow 1; thorax 3; thigh 1; knee 1; leg 1; ankle 3	12
Rupture of urethra 1; extensive extravasation into cellular tissue of penis 2	3
Fractures, simple, of skull 2; lower jaw 1; clavicle 4; humerus 2; forearm 5; os innominatum 1; neck of thigh bone 2; shaft of thigh 11; of both bones of leg 7; of fibula 3 . . .	38
—— compound, of skull 10; nasal bones 1; superior maxilla 1; inferior maxilla 3; of both maxillæ 1; humerus 1; forearm 2; fingers 1; leg 8	28
—— complicated, of elbow-joint .	2
Dislocation of the shoulder-joint 3; of the elbow-joint 2; of the thumb 1; of the hip-joint 1; of the ankle-joint 2	9
Burns, of the trunk and extremities 5; of the leg 2; of the foot 2; by sulphuric acid 2	11
Scald, of leg 1; of foot 1; of fauces, pharynx, œsophagus, and larynx, by swallowing boiling water 1 . . .	3
Contraction in consequence of burn of elbow-joint	1
Caries, of malar bone 1; tibia 1; os calcis 1	3
Necrosis, of lower jaw 1; femur 3; tibia 15; bones of foot 1	20
Exostosis of tibia	1
Osteosarcoma	1
Disease of vertebræ	10
Joint, acute inflammation of shoulder 2; hip 1; knee 2	5
—— chronic disease of elbow 1; wrist 2; hip 4; knee 9; ankle 4 . . .	20
Hernia, strangulated	2
Rectum, stricture of	2
Fistula, in ano 3; in perineo 1; vesico-vaginal 1	5
Urine, retention of	16
Urethra, stricture of	1
Paraphymosis, threatening gangrene .	1
Testis, enlargement of	6
Hydrocele	3
Vagina, excoriations of	1
Perineum, laceration of	1
Venereal, primary 30; secondary 21 .	51
Gonorrhœa 5; hernia humoralis 3 . .	8
Cancer, of scalp 2; face 1; jaw 1; lip 4; shoulder 1; mamma 3; penis 2; leg 3	17
Tumours, encysted, of lip 1; at angle of jaw 1; of thigh 1	3
Fungus, growths from gums 1; hand 1; foot 1	3
Hæmorrhagic tumour of lip . . .	1
Lymphatic glands, considerable enlargement of	4
Polypus, benign, of one nostril 2; of both 3; of pharynx 1; malignant, of nostril 1	7
Cutaneous diseases	15
Eye and its appendages, diseases of, eyelid, encysted tumour of 1; aneurism by anastomosis 1; lippitudo 2; entropium 2; fistula lachrymalis 3; eyeball, wound of 2; ophthalmia, mild 12; purulent 1; pustular 3; deep-seated inflammation of globe 3; ulceration of cornea 4; sloughing 2; granular conjunctiva 3; iritis 3; cataract 4; amaurosis 6 . . .	52
Total	957

Of these were discharged cured . .	590
as externs relieved	179
and re-admitted	48
by their own or relatives' desire	54
for other causes	14
Died	22
Remain in house, Jan. 1836	50
Total	957

It appears that surgical diseases have been admitted in a much larger proportion than medical. The chronic forms of the latter being less calculated to arrest the attention of the poorer classes, they do not in these cases so anxiously seek admission as when suffering from external ailments; they can, moreover, under such circumstances, longer struggle for the support of their families, and can be treated with greater safety at home than in the more serious surgical diseases, for which the care, comfort, and cleanliness of an hospital are indispensable.

I was imperatively compelled to receive eight cases of continued fever, though contrary to the regulations of the institution. This county is without a fever hospital, except a small house adjoining the village of Abbeyleix, supported from the private charity of Lord De Vesci, into which cases from the immediate neighbourhood are alone admissible. Epidemic fever, of a most malignant form, has prevailed to a greater extent in this county within the past than for the preceding seven years, and several lives, I am satisfied, have been sacrificed for want of a place for the accommodation of the sick. I was obliged to

receive some few destitute creatures into a cabin on my farm, and provide for their care from a small balance of the cholera fund which remained in hand. Under such circumstances it may be well conceived that a few miserable beings who made their way to the Infirmary as the most natural place to seek relief, could not be driven to their almost certain fate of perishing by the road side; they were disposed of apart from the other patients, nor was any inconvenience experienced from their admission.

Two cases of insanity were received. One of a very short standing, which was soon discharged cured. The other afforded a striking example of the tenacity of life, and of the powers of endurance which some lunatics enjoy. Under the influence of a superstitious delusion, he effected castration within a few weeks previous to presenting himself at the Infirmary, where he arrived in a state of absolute starvation, having wandered from the County Wicklow with the hope of inducing me to amputate his hand, which he had himself endeavoured to blow off with a pistol-shot, at the loss, however, of only one finger. He continued obstinately to refuse food for many days, though on admission he appeared in a state of almost total inanition. By the persevering administration of nutritious diet, by means of the stomach pump, his strength was re-established; the wound went on to heal kindly; he was induced to take his food voluntarily, and was delivered to his friends in safety. I have had several opportunities of observing the extraordinary celerity with which lunatics recover from injuries calculated to endanger the lives of persons enjoying perfect health; their wounds generally unite by first intention, fractures become quickly consolidated, and they rapidly recover from the most serious casualties, under very disadvantageous circumstances.

Cerebral disease is a frequent occurrence, and presents itself in a variety of interesting forms. I regret that I am almost totally debarred from the pathological investigations which are so pre-eminently essential to throw light upon these affections. The prejudices of the people are so deeply rooted, that I am almost entirely precluded from the cultivation of morbid anatomy, and many important cases consequently remain undefined and doubtful.

Under the head of spasmodic affections of the diaphragm, I have noted down two singular cases, apparently of irregular hysteria, complicated with derangement of the digestive organs; both were females between sixteen and eighteen years of age, and their symptoms resembled each other so closely, that one description may apply to both.

At frequent and irregular intervals during the day, and without any obvious cause, sudden paroxysms took place; every inspiration was effected by a spasmodic effort, and attended with a sound resembling that produced by hiccup, but infinitely louder and more shrill, so much so as to be readily heard throughout the house; considerable uneasiness and sense of oppression being at the same time felt at the epigastrium. The paroxysm frequently continued for an hour, and left the patient much exhausted. The pulse was accelerated, the tongue loaded, the appetite impaired, bowels confined, catamenia suppressed, and considerable tenderness experienced on pressure over the region of the stomach and liver. The administration of fetid aperients, cupping and blistering of the epigastrium, with a light nutritious diet, invariably afforded complete relief; but the disease frequently recurred in some time after the patient's discharge.

Several cases of purpura occurred amongst the out-door patients, as well as those admitted, which were of extreme severity. In two instances the hæmorrhage from the mucous surfaces was so profuse as to leave little hope of recovery: the posterior nares requiring plugging, and the free administration of stimulants was found necessary to sustain life. In those of a sthenic character, bleeding and the administration of solution of chloride of soda, in half-drachm doses every three hours, were attended with the best effects. In those of an asthenic description I found the latter remedy to fail, and trusted to acetate of lead and opium, followed up by quinine and sulphuric acid.

For several months a severe affection of the throat, generally accompanied by low fever, has prevailed in an epidemic form. It appeared at the same time with scarlatina, and both frequently ran their course together: such members of a family as might not have had scarlatina being attacked by that disease; those who had previously gone through it suffering from all its symptoms in a severe form, without, however, any appearance of eruption. The concomitant fever, though sometimes highly inflammatory, was generally of a low type; the inflammation of the fauces extensive, of an erysipelatous character, always attended with considerable submucous effusion, rapidly running into ulceration, and occasionally inducing alarming sloughing. With persons of healthy constitution the disease frequently terminated by suppuration, which, next to resolution, usually brought the case to the most speedy and favourable issue. The only local application from which much benefit was experienced in the severer forms of the disease was nitrate of silver, either in a solid form or in strong solution, and the constant use of chlorine gargle. Several delicate young persons were carried off by this disease, and some of robust constitution received from it a serious shock.

Affections of the stomach, both functional and organic, hold a prominent position in the catalogue; dyspeptic complaints being very general amongst the labouring classes, induced principally by unwholesome food, consisting of potatoes, which many are obliged to live upon, seasoned only with a little salt, and washed down by a draught of water. I think I may safely say that one-tenth of those who seek relief as out-patients at the Infirmary, labour under diseases of this description, which too frequently terminate in permanent change of structure.

Among the many cases of dropsy admitted, several were of the acute form, originating from exposure to severe weather, or from suddenly suppressed perspiration. Two or three days were in many instances sufficient to establish the disease, which, however, generally yielded to prompt treatment: a full bleeding or two, with large doses of supertartrate of potass, being commonly sufficient for its removal.

The case of hydropericardium was more distinctly marked by external appearances than any I before witnessed. The subject was a young foundling girl, much attenuated, who had for some time suffered from severe palpitation, probably caused by organic disease of the heart; her limbs were anasarcous, and effusion had taken place into the peritoneum; the intercostal spaces in the cardiac region were full and prominent, presenting a distinct sense of fluctuation, and each pulsation of the heart communicated a remarkable undulatory movement to the integuments. Palliation of symptoms was for some time effected, but the patient left the Infirmary with little prospect of surviving long.

Numerous cases of erysipelas occurred, both in the Infirmary and generally throughout the country, during the year; in some instances attended with severe and rapidly fatal inflammation of the absorbents. I have, I believe, within the past year, seen as many examples of the latter disease as during my entire previous experience; in some instances occurring from the most trifling scratch, occasionally commencing in an old and indolent ulcer, and often without any assignable cause. On one or two occasions, death followed within three days after the incursion of the attack.

In almost all cases, as well of erysipelas as of inflammation of the lymphatics, I have been in the habit of using nitrate of silver for the purpose of insulating the disease, and with marked advantage, particularly in the former affection. I repeatedly have observed an attack of erysipelas of the leg run along the limb till it met the ring formed by the nitrate of silver, and stop abruptly at that point, as if the patient had drawn on a red stocking. The damping of the surface with a moist sponge, and from six to ten strokes of a pencil of caustic, more or less, according to the delicacy of the skin, are sufficient to produce the desired effect; the part being left exposed to the air, a dark-coloured vesicle forms in a few hours, which being emptied, the whole inflamed surface usually desquamates in a few days.

The number of casualties has been very considerable. A large proportion of wounds and fractures of the extremities have been caused by inattention on the part of persons having the charge of horses and cars, and a custom that prevails of driving without reins—evils, the correction of which are considered unworthy the attention of the police, yet no inconsiderable loss of life is the consequence.

In two cases of compound fracture, and in one of extensive laceration of the leg, gangrene quickly set in, and the patients refusing to allow amputation, it rapidly extended. In these instances the injured parts became considerably swollen, and distinctly emphysematous, immediately after the receipt of the injury. Emphysema of an injured part is always an unfavourable symptom. I cannot easily account for it, as it sometimes occurs without the integuments in the vicinity of the wound appearing to have been elevated with sufficient force to cause the entrance of atmospheric air, and before gas could possibly be evolved by decomposition; it is too often a forerunner of gangrene, the extension of which is generally indicated by the progress of the emphysema along the course of the absorbent vessels.

Three persons were admitted who had been severely stabbed. During preceding years, in which a week seldom passed without the perpetration in this county of some dreadful outrage, I had but too many opportunities of observing the effects of wounds inflicted by bayonets or similar instruments. Mere flesh-wounds, however deep, usually healed within a few days, but whenever a cavity was punctured, a train of formidable symptoms might be confidently anticipated, frequently proving fatal, if not immediately from the effusion of blood, or from the violence of the inflammatory fever, with as much certainty from the secondary effects produced by the establishment of chronic disease of a serous membrane, or of an injured viscous, the mischief in some instances making most insidious progress. One case I particularly recollect. The individual received a bayonet wound of the back, he placed himself under the care of a surgeon, the wound soon healed, and he was sent home as cured. After a few weeks, some pain was felt in the neighbourhood of the wound, respiration became hurried and difficult, and the patient having come to the infirmary for advice, dropped unexpectedly dead at the gate, before admission. On

dissection, the cavity of the right pleura and serous covering of the diaphragm was found coated to a considerable extent with false membrane, and containing a large quantity sero-purulent fluid. The convex surface of the liver was occupied by an extensive abscess, and numerous adhesions existed around this viscus. From the position of the wound it must, I conceive, have passed through both the pleuræ and diaphragm, and entered the liver; but the character of the primary symptoms did not, I believe, by any means lead to the apprehension of so extensive an injury.

The unexpectedly favourable issue of the following case makes it worthy of record. A reaper having a quarrel with a fellow-labourer, received a heavy blow of a hook, by which the first phalanges of two fingers were cut completely across; he described them as having been attached merely by a portion of the integuments in front. A large quantity of blood was lost. He hastily wrapped the part up, and came a distance of thirteen miles to the Infirmary. The divided bones were much displaced, and required to be carefully adjusted; they were connected only by a very small portion of the soft parts, but it was not decidedly ascertained whether the vessels had been divided. I have, however, little doubt that such was the case. By the application of adhesive straps and a splint, the corresponding parts were retained in exact juxtaposition, and allowed to remain undisturbed for a couple of weeks, the hand being cleansed without removing the dressings. The progress to recovery was uninterrupted, and he was discharged in about six weeks, the wounds being healed, the bones firmly united, and the flexibility of the joints almost perfectly preserved.

The large number of fractures is striking; yet those only of a more serious character, or of the lower extremities, were admitted into the infirmary. Many fractures of the arm and clavicle, and numerous dislocations, were treated as out-door patients.

A brief outline of the mode of management adopted may not be out of place; the result tends to support the opinion advanced by Dr. Houston on the subject. No time that can be avoided is lost in reducing the fracture, placing it in the extended position, and retaining it so. A large supply of strong tin splints, of various shapes and sizes, with corresponding cushions made of calico, stuffed with curled hair, is always ready. The splints are bent, moulded and fitted as accurately as possible to the uninjured corresponding limb; cushions adapted to them; and they are secured upon the limb by means of leather straps with buckles; a piece of oiled silk being placed next the skin, in case of wound, to keep the cushions clean. If the fracture be of the lower extremity, a Desault's splint is usually applied, and secured firmly to the pelvis, to prevent rotation. Should it be found that any of the splints already made might not be suited to the purpose, new ones are readily cut out, a quantity of tin of various degrees of strength, and a pair of shears, being kept always at hand. The part is examined every four or five days; and if it be found, when union has taken place, that the limb is not perfectly symmetrical, little difficulty is experienced while the callus remains soft and plastic, in moulding it into proper shape; nor does it appear that by moderate degree of torsion or extension, the cure is in the slightest degree retarded. If the fracture be reduced in a short time after the receipt of the injury, it is surprising how little pain or inconvenience is experienced.

By this plan, the treatment of simple fractures is found extremely easy, and attended with but little trouble. The pupils quickly become expert in arranging them, and deformity is unknown.

In fractures of the cervix femoris, I act upon the presumption that ossific union may take place, and, as I conceive, with beneficial consequences. I have invariably found that the patients on whom most pains had been bestowed, to retain the fractured portions of bone in accurate juxtaposition and immoveable, ultimately recovered the most perfect use of the limb. I have succeeded to a considerable extent towards effecting this object in the following manner:—The patient being placed in bed, a strong cotton stocking, to either side of which a stout bandage had been sewed along its entire length, is drawn on the leg above the knee; it is then firmly secured on by pinching it up, and sewing it tightly when drawn as wide as it can be stretched. This being done, a very considerable degree of extension can be exercised by means of the attached bandages, the pressure of which, instead of bearing upon one point, is equally diffused over the knee, calf, ankle, and instep; the closeness with which the limb is embraced, prevents the occurrence of any degree of subsequent swelling, and the necessary degree of counter-extension can be kept up without inconvenience or danger of sloughing; the extremity is next extended to its proper length, and placed in position; the thigh is surrounded with the tin splints and cushions already described, the front one being connected with, and forming a limb of a large splint, on which chiefly depends security from motion. It consists of a shield or plate sufficiently large to cover the greater part of the anterior surface of the abdomen, the sides being hollowed for the reception of the spines of the ilia; from this a limb runs down over Poupart's ligament along the front of the thigh, which it assists to envelope; a stuffed cushion preserves all parts from pressure; the lower portion is secured with the other splints to the thigh

by straps; the upper by bandages round the pelvis. A very considerable amount of counter-extension is then made by means of Desault's splint, to which the tails of the stocking bandages are tied; a thick pad is next placed high up between the thighs, and both limbs bandaged firmly together. In this way the leg and thigh of the injured side are used as a lever, the pad between the thighs serving as a fulcrum, and any pressure calculated to cause a shortening of the neck of the bone, or the entrance of the neck into the cancellated structure of the shaft prevented. The bandages running from the stocking to the Desault's splint must be kept from time to time carefully tightened. To derive real benefit from the treatment, the patient should remain from two to three months in bed, and forbear to use the limb for a much longer period. By this method I have had cases recover with little perceptible lameness, but in no instance did I succeed in preventing a slight degree of halt. A laced stocking of Indian-rubber web, with suitable bandages, may be an improvement upon what I have been in the habit of using.

I do not know whether I shall be considered justified in the course adopted with the following case, though the result fully answered my expectations. A boy, eleven years of age, received a fracture of the thigh about the junction of the middle with the upper third. Splints were applied, and in about six weeks consolidation had firmly taken place. On their removal it was found that the limb was about four inches shorter than its fellow, the bones being considerably overlapped, and the extremity of the upper portion, which was attached at an angle to the lower, pressing strongly against the integuments, through which it appeared likely to protrude. At the end of ten weeks he was placed under my care. The fracture was so firmly united as to appear equal in strength to any other part of the bone. The integuments presented a blush of inflammation, and were tender to the touch at the point where the end of the bone pressed against them, and I felt very doubtful whether I should succeed in breaking up the connexion. It yielded more readily than I had expected. Under extension, steadily applied by means of a lac, the bones gradually separated from each other, and were without difficulty reduced to their proper position. It was not, however, found by any means easy to retain them so. Their points having been rounded off by absorption, and the muscles become habituated to their shortened condition, they easily slipped aside, and glided past each other. It was consequently necessary to secure the splints very tightly, and to keep up considerable counter-extension by means of the stocking and Desault's splint. In six weeks strong union had taken place, and at the end of two months he was discharged without the slightest deformity. In a couple of months more I accidentally saw my patient limping about on crutches; the limb was very much bowed, and presented a more unsightly appearance than ever. On closely questioning him, he confessed that he had got a fall, by which he felt that "the bone had been strained," and afterwards remained crooked. He concealed the occurrence from his friends, fearing that he might again have to encounter the annoyance of a resetting. I had him brought to the infirmary, and by confining him to bed, and keeping up a steady lateral pressure with splints, the bone was gradually brought back to a straight line, and he was ultimately discharged with a perfect limb.

Amongst the cases of dislocation one only appears deserving of remark. A married woman fell from a ditch, and displaced her shoulder. She put herself under the care of an humble brother of the craft, called here a "bonesetter," who, having submitted her to certain agreeable manipulations, assured her that after a little time all would be right. Not finding his promises realized, she came, after a lapse of nine weeks, as she said, "to have a trial of me." The head of the humerus was lodged under the coracoid process of the scapula, and admitted of but very limited motion. The deltoid was wasted; and to render the case more satisfactory, she was in the fourth month of pregnancy. I explained the case to her, and she took another week to prepare. I afterwards learned that this preparation consisted in her going to solicit her clergyman to baptize her infant in utero. At length she delivered herself into my hands as if she were going to the scaffold. The exercise of very considerable extension, by means of pulleys, was requisite to remove the bone from its situation. It was then lodged on the glenoid cavity, but it was found most difficult to retain it in situ, as it seemed that the hollow had been filled up, the ligaments so torn as to afford little support, and that the action of the muscles was calculated to displace, rather than maintain it in position. By careful bandaging this object was effected, and the case went on well.

A melancholy proof of the sanguinary spirit of the people is afforded by the extraordinary frequency of fractures of the skull. I have had more experience of these injuries within the last seven years, than should fall to the lot of one person in a civilized community during his entire life-time. On no cases have I bestowed more anxious attention, and in none have I been beset with greater doubts and difficulties. If it were necessary at this time of day to dilate upon the intimate connexion which necessarily exists between medicine and surgery, no more striking illustration need be selected than these injuries. They require the patient

investigation a philosophic mind, the most careful administration of internal remedies, and frequently the prompt assistance of a dexterous operator. For the treatment of no disease is it more difficult to define general rules. For none does the medical attendant more require to be possessed of resources within himself.

The character of the general symptoms soon after the receipt of the injury, frequently affords but a very imperfect indication of what may be the future progress of the case. Too often have I seen a patient walk to his ward in the full possession of all his faculties, and impatiently submit himself to the restraints of the hospital; yet within two or three weeks, or even days, he may be reduced to a state of hopeless coma. More than once have I had occasion bitterly to repent having allowed the absence of unfavourable symptoms to induce me to delay the elevation or removal of broken fragments; and I have occasionally apprehended that the train of fatal symptoms which supervened after the operation of the trephine, might have been averted had I abstained from interfering. The conclusion, however, to which I have on the whole arrived is, that if the fracture be compound, the broken fragments much and abruptly depressed; if they be comminuted, or detached from the soft parts to any considerable extent, it is on the whole safer to remove them. I have seen so many instances of suppuration of the brain having taken place, under the most vigilant treatment, in cases which were in the earlier stages unattended with unpleasant symptoms, that I cannot help thinking it most judicious to remove every thing calculated to excite or keep up inflammation. To effect this I think it will not be often found necessary to have recourse to the trephine. I feel satisfied that I have frequently seen this instrument used when all the desired effects could have been attained by easier and safer means. In the majority of cases I experience little difficulty in getting away such portions of bone as I may wish by a pair of forceps, which I had constructed for the purpose. It in some degree resembles the straight tooth-forceps, the handles being, however, longer, the jaws both longer and more straight, and terminating with fine, strong, and well-tempered points. By means of this instrument a small portion of the broken bone may be seized and brought away with a cautious motion of the hand, care being taken not to allow the bone to turn edgeways, so as to endanger the dura mater. As each portion, however minute, is got away, the operation becomes more easy, and the true condition of the parts within can be more readily ascertained. In some cases the use of a pair of lateral cutting-pliers will be found to assist in making room, and they will be occasionally found useful in cutting away sharp and spiculated portions. I do not mean to say that this instrument can be in all cases substituted for the trephine, but it may in a great many, for which the latter instrument has been heretofore used. I conceive it preferable, as being less calculated to alarm or shock the patient, as it is only used for the extraction of the broken fragments without enlarging the extent of injury by removing a sound portion of the skull, and as being less liable to lacerate the dura mater, or wound a subjacent vessel; an occurrence by no means uncommon, from the use of the trephine in the hands of an awkward operator. In a few cases, no symptoms of compressson being present, I yielded to authority, and refrained from removing fragments which had been much depressed, as for instance, by the blow of a spade. However well the patient might go on for four or five weeks, at the end of that time alarming symptoms generally set in, and he was quickly carried off, the brain being extensively disorganized, and broken down into a semifluid pulp, intermediate between cerebral matter and pus. I have occasionally observed this degeneration to take place when the broken fragments had been removed, or the trephine applied; in such cases hernia cerebri generally appeared, caused, as I conceive, by the projection of a layer of the brain, in a morbid condition, through the opening, by the accumulation of the disease beneath. This I have upon two or three occasions ascertained by dissection, and on others demonstrated during life, by the introduction of a lancet, and the consequent discharge of a large quantity of matter. We should, however, recollect that the liability to profuse hæmorrhage, which sometimes attends these herniæ, requires a degree of caution in the adoption of the latter step. If, in weighing the necessity for manual interference in cases of injury of the head, we allow ourselves to be exclusively guided by the condition of the patient's mind, or by the absence or presence of the usual symptoms of compresssion, we may, I apprehend, be led to erroneous conclusions. It occasionally happens that the severest lesions of the brain may be for a time unattended with any marked derangement of its functions; for example, I admitted a patient a few months since, who, while assisting to throw up hay upon a rick, received a severe injury by the fall of a fork from a considerable height on the back part of the head; one of the prongs entered the brain for a distance of between three or four inches, yet few marked symptoms devolped themselves for some days, the patient's intellect remaining uninjured, and little inconvenience being experienced beyond a trifling want of equality in power over his arms. Before a week he became comatous, and died, although he was from the receipt of injury placed under the most watchful medical treatment. I have, on the other

hand, occasionally seen the manifestations of the mind completely interrupted by the pressure of a large piece of depressed bone, and afterwards become restored, as the brain adapted itself to the alteration in shape which its case had undergone, without any mechanical effort being made for its relief. In deciding on the course to be pursued, we should, I conceive, be a good deal influenced by the nature of the fracture itself, as relates to those particulars to which I have already alluded.

Amongst the list of cases is one who swallowed a pin: she came to me from an adjoining county, complaining of very distressing symptoms, and I was therefore obliged to admit her for a few days. Females, to whom this accident may have occurred, constantly come to me for the purpose of having the pin removed. If it so happens that it may have passed the œsophagus, it is almost impossible to convince the patient that it does not remain in the throat. She points to the situation of either cornu of the os hyoides as the seat of all her troubles; there she feels the soreness increased by every attempt to swallow, and there she obstinately insists she can distinctly feel the pin when she passes her finger down the throat. It may be readily supposed that her efforts soon induce a degree of inflammation, which renders the illusion more confirmed, as conjunctival vascularity induces a sensation of sand in the eye, or inflammation of the fauces a feeling of a foreign body there. On passing down the finger we may ourselves for a moment remain in doubt. The muscles of the pharynx being thrown into a state of spasmodic action, force the cornu of the os hyoides forcibly against the mucous membrane, and the sensation communicated to the finger resembles strongly what might be expected from the presence of a large pin lying across under this membrane. That this mistake, into which even a practitioner may fall, might lead to serious consequences, is proved by a case which came under my care not long since. A young girl having allowed a pin to slip down her throat, lost no time in proceeding to a neighbouring surgeon. She felt quite satisfied that she could place his finger where it lay at the butt of the tongue, as is commonly described. He examined the throat, and felt so convinced of its presence, that he made a deep incision at the side of the os hyoides for its removal; I need scarcely add, without effect. He was favoured by fortune, and escaped injuring any of the large vessels, but considerable inflammation supervened, and the girl was obliged to seek admission at the Infirmary, where she slowly recovered. Much better had he committed the harmless deception, sometimes practised by my father, of slipping into the basin a pin answering to the description of the one swallowed by the patient.

Diseases of the bones and joints are of frequent occurrence, particularly necrosis, which prevails to a great extent, and often in a very acute form. This disease sometimes sets in very suddenly, and without any obvious cause. A patient has told me, that while walking along he has been struck with pain in his leg, which prevented him from proceeding farther, and rapidly increased to intense agony. On his coming to the Infirmary in a few days, I have found the forepart of the leg occupied by an abscess along its entire extent, and the periosteum detached for the same distance. It seems to me that in these cases suppuration takes place in the first instance under this membrane, which readily, accounts for the suffering of the patient. In this acute form of the disease the new bone is generally formed with incredible rapidity, often within a fortnight after the opening of the abscess, and before any line of separation for the detachment of the sequestrum has been established;—a fact which distinctly proves that it is by the vessels of the periosteum and of the neighbouring soft parts that the process of reparation is performed. In one or two cases under my observation, the constitution proved unequal to the reproduction of the bone. Under such circumstances the sequestrum separates, the limb remains unsupported, unless by artificial means, hectic fever, attended with extreme debility, sets in, and the only alternative is amputation or death. It is usually difficult to prevail on the patient to permit the removal of the limb before he is reduced to the lowest state of debility, compatible with the preservation of life; we must not, however, allow ourselves to be discouraged from the operation in consequence, for it is surprising how quickly the strength becomes retrieved after the removal of the local disease. During the last year I performed amputation of the thigh on four individuals, who were reduced so low by hectic fever, as to appear unlikely to survive for forty-eight hours. Two laboured under necrosis, and two under disease of the knee joint. Three of them recovered rapidly, the fourth died, as I had anticipated, for I could not by any means prevail upon him to allow the operation, while it afforded a reasonable prospect of a favourable issue; when too late, he became so importunate for its performance that I yielded to his entreaties, but he was too much debilitated, and sunk within a few days without an effort at reaction. Even in this case I am of opinion that life was for a short time prolonged by the removal of the disease. I think I have seen a greater number of cases of necrosis amongst foundlings, than through the whole population besides. It would seem that these unfortunate beings are doomed to expiate the crimes of their parents by a life of unparalleled hardship, privation, and mi-

sery. They are frequently worked like beasts of burden on insufficient food, and with but half clothing. When affected with disease, it often happens that their task-masters will not bring them to the Infirmary till their lives or limbs are placed in the most imminent jeopardy; they know not sympathy for their sufferings, and in too many instances receive only evil at the hands of their fellow-creatures. Life is to them a dreary waste, without interest, without hope; and their minds too often become warped and perverted, as well as their bodies enfeebled and diseased.

I had but two cases of strangulated hernia in the Infirmary within the year; one yielded to the taxis, the other required operation, and presented features of considerable interest. While walking to chapel, the patient was suddenly seized with violent pain in the groin, which soon extended to the whole abdomen, and was succeeded by obstinate vomiting and constipation. He was removed the same day to the Infirmary. A small firm tumour, exceedingly tender to the touch, occupied the inguinal canal: no testis was to be found in the scrotum at this side, nor could the patient say whether it ever had descended. Failing in any attempts to reduce the tumour, and the symptoms continuing unabated, I had recourse to the operation. I found the testis in the inguinal canal, with a portion of small intestine, closely constricted within the tunica vaginalis, which was much distended. The hernia was readily reduced, but it was not found feasible to introduce the testis into the scrotum. The distended tunica vaginalis hanging loosely in the wound, and appearing calculated to interrupt adhesion, I removed a considerable portion of it, and passed the testis behind the internal ring: the patient speedily recovered. Having detailed the case at length, and subjoined some observations on the treatment of hernia, and a more effectual application of the taxis in one of the numbers of Dr. Ryan's Medical and Surgical Journal, I need not repeat them here.

During the summer I was called to see a lady aged about fifty, who had been affected with hernia for several years, which within a few days had become strangulated. The tumour was considerable, and underwent but partial reduction from the taxis. The symptoms being urgent, and considerable time having already elapsed, I did not long delay the operation. The sac contained a small knuckle of intestine, and a large pyriform mass of omentum, which was agglutinated together by adhesions of long standing, and connected with that in the abdomen by a small peduncle; to reduce it was impracticable, even if I was disposed to make such an attempt: I accordingly removed it. No vessel required ligature, nor was there any hæmorrhage of the least consequence; my patient did well, and was in a very short time out of bed. The portion of omentum removed, and which I have preserved, weighed a pound and a half.

To only two of the cases of retention of urine do I think it necessary to allude particularly; one was a female infant a few months old. The retention, which was complete, proceeded from pressure caused by the accumulation of an enormous quantity of pus, at least a pint, in the vagina, which was imperforate, and had undergone considerable distention, the tumour reaching above the umbilicus. The presence of the fluid within facilitated the operation, which afforded complete relief, but the mother removed the child before the wound had entirely healed, and neglecting it at home, adhesion took place, the former symptoms returned, and I had again to divide the part. After this the child remained under my observation, and was in a short time discharged cured. The history of the other case has been more eventful. The patient was for the first time attacked with retention of urine about nine years ago; he sent for an apothecary who was in the habit of practising surgery, and who since procured a diploma as a surgeon, the same person who made the incision in the neck in search of the pin before alluded to. Without ceremony he forced a turkey's quill as far as he could reach down the urethra. This feat was practised, I imagine, in consequence of my father (who was in the golden age of surgery often thrown upon his own resources) having relieved a young female from retention by means of a goose quill in the town where this gentleman resided. The consequence of the reckless attempt, was profuse hæmorrhage both into the bladder and externally, with a distressing aggravation of all the previous symptoms. The patient sent for a surgeon, who was obliged to puncture the bladder, which he performed over the pubis, and removed a large quantity of coagulated blood; after some time a second attack set in, and he was by another surgeon punctured through the rectum. In a few months more he became bad again, and was admitted into the Infirmary. The bladder was much distended, his perinæum like a rabbit warren, from numerous false passages, and the prostate considerably enlarged; from the latter circumstance the disease probably first originated; I made ineffectual trial of every other means I thought calculated to relieve him, but was obliged to have recourse to the trocar, and had to puncture twice subsequently above the pubis. His illness having again returned, I made trial of such an instrument as I thought could not readily slip into any of the false passages, the extent and position of which I was enabled to ascertain with tolerable accuracy; they ran in different directions between the bladder and rectum, and one extended for some distance beyond the prostate.

I carefully introduced a silver catheter of No. 11 size, which is nearly a quarter of an inch in diameter, kept it closely directed along the upper surface of the urethra, and passed it on till it hitched against the opening of one of the false passages immediately at the bulb; I then passed my finger into the rectum, brought it firmly against the catheter, the handle of which I quickly depressed, using the instrument as a lever, my finger as a fulcrum; the point passed up behind the arch of the pubis, and entered the bladder. This manœuvre I had before tried in vain with instruments of the ordinary size. The poor man has had several returns of his complaint each year, and I have always succeeded in relieving him in this manner, latterly without difficulty, as I suppose in consequence of the false passages having become contracted, and the urethra more open by the repeated introduction of the instrument. I have by the use of this instrument, in several instances, succeeded in affording relief which other hands had failed to effect, and I have found it particularly useful in cases of retention from enlargement of the prostate gland. Within the last few months, I was called to a neighbouring county to visit a gentleman advanced in life, who had been labouring under retention for four or five days, and on whom three well qualified practitioners had made several efforts on different days to introduce the catheter, and consequently abandoned the attempt as hopeless, and made up their minds to puncture. By the use of the large instrument, in the manner already described, I effected the desired object without delay or difficulty. The prostate was much enlarged and indurated; a large sized gum elastic catheter was kept in for some time, but the bladder has not yet acquired the power of emptying itself, and the patient is obliged frequently to introduce the instrument himself. I find that I can use a metallic instrument with more confidence than the gum elastic, and I believe it to be safer than the latter with its stylet. I have, however, sometimes observed that the flexible instrument might be introduced when the silver one could not; it has occasionally happened that by passing on the gum elastic instrument with a strong stylet, till it meets with the obstruction, then firmly fixing the stylet with the left hand, and urging the tube forward with the right, the stylet being kept unmoved, it will enter the bladder, though this could not be effected in any other way. I have found this plan more useful than the partial withdrawal of the stylet for the purpose of shortening the curve of the instrument, or raising it over an obstacle in the passage. The large sized instrument is peculiarly well suited for cases of diseased prostate, being much less liable than a smaller one to be forced through the urethra, while traversing the short turn made by the neck of the bladder, when partially doubled on itself by the ascent of this viscus from the pelvis, while the neck remains firmly bound down and compressed by the enlarged gland beneath. I seldom meet with stricture as a cause of retention of urine; it is a disease of very rare occurrence amongst the peasantry, who also enjoy an almost complete exemption from calculous diseases. I have seen but two cases of stone within the last seven years amongst the labouring classes.

It appears that cancerous affections are rather prevalent. As the following seems to have been a rare specimen of the disease, it may be considered deserving of notice.

A female aged 45, had from her infancy a small tumour about the size of a pea over the left malar bone; it was unproductive of any inconvenience; she took it off by means of ligature; it reappeared, and she a second time removed it in a similar manner fifteen years since; it did not again return, but left a small mark, to which she paid little attention. About a year previous to admission, this part began to swell immediately after she had discontinued nursing. In six weeks a tumour was formed as large as an orange, tender to the touch and fluctuating; she punctured it with a large needle, which caused an abundant discharge of blood, but of no other fluid. Shortly after ulceration set in with considerable activity, attended with frequent hæmorrhage and paroxysms of severe pain; another tumour soon after formed under the left ear, of an irregular shape, hard, and the seat of severe lancinating pains. Becoming alarmed, the patient applied to a countryman who professed to cure cancer; he put a plaster on the ulcer of the face, to remain on for four months. This application induced the most violent pain, which she endured with fortitude for the prescribed period; during this time several small tumours formed in different situations, their appearance being generally preceded by a degree of sickness, the part about to be affected becoming tender and inflamed. On removing the plaster, she found that all the soft parts beneath it had been destroyed, and the cheek bone laid completely bare. From week to week the tumours became more numerous, and her health progressively gave way. At the period of admission she presented a most extraordinary appearance. I never beheld more complete emaciation. The left malar bone, and the anterior and outer third of the orbit, lay completely denuded, and presented the appearance of bones which had been exposed for half a century in a churchyard; the soft parts had cicatrized around, and lay in firm contact with the dead bone. The globe of the eye had fallen in, and little trace of it remained. The situation of almost every gland was occupied by a carcinomatous tumour. The left parotid was much enlarged, reached forward on the cheek, as high as the

zygoma, and half way down the neck; it was of almost stony hardness, very irregular on the surface, and prevented the mouth from being opened wider than half an inch. The situation of the mammæ was occupied by similar productions, resembling the healthy gland in size. Several hundred tumours of various sizes, from that of an orange to a grain of snipe shot, were studded over the trunk and extremities; those on the trunk being larger than on the limbs, and those on the lower extremities larger than on the upper: they were more numerous and closely situated near to them, at a distance from the centre of the circulation, and appeared in great numbers along the course of the large absorbent vessels. The liver felt enlarged and irregular, as if also affected, and several hard tumours were to be felt in different situations through the abdomen. In the larger sized alone did she suffer pain, which was of a severe lancinating character, and particularly distressing during change of weather. She laboured under a most distressing sense of weight at the precordia, her respiration was, in some degree, embarrassed, she had frequent and profuse perspirations, but the bowels acted naturally, and the catamenia had continued to appear from time to time at irregular periods. In a few days after admission she was attacked with erysipelas, and left the house before I could have any casts of the disease executed.

I have noted two cases under the head of hæmorrhagic tumour. Both presented at first the appearance of cancerous warts; one was situated in the lower lip of a young female, the other connected with the external jugular vein of a man aged about forty years; their structure was highly vascular, and the tops covered with a kind of horny crust, on the removal of which, blood commenced to drop quickly, and usually continued to flow for a considerable time. From that over the jugular vein it occasionally burst forth in a small jet, and continued sufficiently long to induce considerable debility. Styptic or astringent applications proved ineffectual, the knife was alone found sufficient for their cure.

Cutaneous diseases are very general, particularly those of a squamous character, which prove extremely intractable. I have found tar, both taken internally as pill, and applied externally as ointment, more effectual for their relief than any other remedy; it allays the irritation of the surface, improves the tone of the stomach, increases the appetite, and exercises a manifestly beneficial influence on the general health. I believe it to be endowed with valuable qualities, as a tonic, which are not duly appreciated. In a few such cases I have tried creosote with advantage. I was rather disappointed in its effects on ulcers, to which I had been led to expect it as likely to prove useful; I have not, however, as yet, had sufficient experience of the remedy to enable me to form a correct opinion of its efficacy.

I have been consulted by several persons to whom the bichloride of mercury had been administered for the cure of cutaneous diseases, and had affected the bones in several situations. Some deny that such a consequence ever results from the unmixed effects of mercury uncomplicated with venereal. I recollect having read a paper to that effect, published by Dr. Musgrave, in the twenty-eighth vol. of the Edinburgh Medical and Surgical Journal. I have, however, seen so many cases of nodes and exostoses having formed on different bones of persons at all ages, and in various conditions of life, subsequent to the long continued use of corrosive sublimate for affections of the skin, that I can no longer entertain any doubt on the subject.

Our operations have not been either as numerous or important during the past as former years: if I except the four cases of amputation of the thigh, already mentioned, one of amputation of the leg, one of amputation of the arm, the application of ligature to the tibial and the radial arteries, the use of the trephine in a couple of cases, and three or four operations for cataract, they were of but secondary importance, as the removal of tumours and cancerous diseases, operations for hare-lip, amputation of the fingers or toes, and one for the restoration of the nostrils, which had become closed in consequence of small-pox. For the success which has generally attended my amputations, I feel, in some measure, indebted to the use of sutures, a practice which I have commonly adopted since the commencement of my practice, and which, if generally adopted, would, I feel certain, be found highly beneficial.

Of the twenty-two deaths which took place during the year, three were caused by compound fracture of the skull, accompanied by injury to the brain, three by spreading gangrene, one case case having followed a severe and extensive laceration of the leg, which was emphysematous at the time of admission, and the patient refused to allow amputation; the second was caused by the brutal mal-practice of a "bone-setter," who had broken up an ill-united fracture of the forearm, laid it open, and introduced a tent charged with some stimulating application. In this base the gangrene extended rapidly, and the chance of amputation was given under very hopeless circumstances, the boy being in a state of low delirium at the period of admission. The third was a brewer's man, who received a severe compound fracture of the leg, was attacked with low fever, and carried off. Four died of acute necrosis, two of whom gave way under the irritative fever accompanying the first stage of the disease; a third was worn out by profuse suppuration, attendant on the detachment

of a considerable portion of the humerus, which left the limb completely unsupported; and the fourth, already mentioned, died after amputation for the removal of a necrosed tibia, and a knee joint in a state of suppuration. These four young persons were foundlings.

Three persons were taken off with unexpected rapidity. An old man who was admitted for an ulcer of the leg, by erysipelas and inflammation of the absorbents: a young girl admitted for a chronic abscess of the back, of typhoid pneumonia; and a case of compound fracture of the humerus, by low typhus, of about three days' duration. Another patient died of peritonitis and inflammation of the liver, caused by the wound of a cane sword. A case of hypertrophy of the heart dropped suddenly dead while walking across the ward. Two children survived the effects of extensive burns but a few hours.

A female died with all the symptoms of intussusception, two others from chronic dysentery, one from cancer of the uterus, and a man, apparently in the prime of life, died within a week of purpura, attended with profuse hæmorrhage from the mucous surfaces.

The following cases were removed at the desire either of themselves or friends, in a condition not likely to recover. Three labouring under typhoid fever, the first occurring to an individual who had remained for some days unrelieved from retention of urine; the second had received a severe injury of his finger by the falling of a heavy weight upon it; and a third, who was, at the period of admission, in an extremely low state, from anthrax of the back. Another, a case of typhoid pneumonia, which was admitted for disease of the spine, lodged in the same ward with the case of chronic abscess already mentioned as having died of a similar disease; both took ill upon the same day. Another was a case of gangrene from compound fracture of the leg, in which permission to amputate was denied. A case of acute necrosis; two of dropsy, one of which depended on disease of the heart; one of serous apoplexy, following the rapid absorption of fluid in ascites; one of stricture of the rectum, which was so close as to prevent the passage of a small sized catheter; and one of cancer of the uterus.

I cannot expect that this Report shall be considered generally interesting, nor does it afford as much statistical information as it should. I have been obliged to put it hastily together in a few days, when my mind was otherwise much occupied. Many observations may appear trite, or perhaps display an imperfect acquaintance with the literature of my profession. I have, however, on the whole considered it better to let it go before the profession with all its imperfections, than withhold a candid statement of the condition of the institution, at a time when it is desirable that the workings of such establishments should be as far as possible understood.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXVI.

I SHALL now hasten to conclude the brief sketch I have attempted of the History of Reproduction in the Vegetable and Animal Kingdoms, with a few illustrations afforded by the more perfect quadrupeds. We shall then consider the function in our own species, and complete the epitome I have undertaken of the Universal Code of Generation in Plants and Animals.

Camels are remarkably docile and attached to their drivers, but when in rut, in spring, which is for about fourteen days, they attack them, and all animals—even lions, panthers, tigers, &c.

Mammiferous animals, in general, copulate by the posterior part of the trunk; but there are some exceptions. Thus the female camel squats towards the ground to receive the male; while whales approach each other, their bodies being upright, embrace with their fins, and remain several hours in the same position.

The males of mammiferæ, with very few exceptions, possess more sexual vigour than the females. Thus we observe the guinea pig satisfy fifteen females; a stag, twenty deers; a bull, a hundred heifers; and a ram, a whole flock of sheep, more than a hundred. Thus polygamy, or many females to one male, is established in this class of animals. There are, however, exceptions to this general rule. The roebuck selects one female, and co-operates with her in rearing their offspring. It is stated by Naturalists, that whales are also monogamous. But, generally speaking, mammiferous animals do not live in pairs, and the females are usually burthened with the physical education of the young.

When conception occurs, the females of this class generally refuse to admit the males; but mares, and a few other females, are exceptions, and there is no superfœtation, as sometimes happens in the human subject. Males, in general, are stronger, larger, more robust, and more fierce than females.

It is scarcely necessary to remark, that man considers the whole class of inferior animals formed for his use and benefit, and derives much of his aliment from them.

It occasionally happens that particular species copulate and reproduce with those of a different kind; thus the horse and the ass, and the ass and the mare are familiar examples, but mules are imperfect and cannot propogate. It is also known that the wolf engenders with the bitch, and the latter with the fox; the domestic dog with the wild dog and castor; the zebra and the couagga with the ass or mare; the wild boar with the guinea pig, &c. Bayle mentions that a large rat had copulated with a cat, and that a species of both were engendered, and were reared together. I have been told that a cat reared a young rat with her kittens, which it was said was brought forth with them. But it is necessary for reproductions such as these now mentioned, that the individuals of the different species should not possess a great difference of organization. Thus we never observe the horse propagate with the heifer, the dog with the sow, &c.

The longevity of mammiferous animals does not vary much from that of fishes and birds. Thus the cat lives from five to ten years; the marmot from nine to eleven; the ox, fourteen or fifteen; the bull and cow, about the same time; the dog, from fifteen to twenty-two years; the hog, about the same time; the horse, from fifteen to twenty-five; the wolf, from fifteen to twenty; the fox, from twelve to fifteen; castors, from fifteen to twenty; bears, from twenty to twenty-five; elephants and stags, for some ages.

The gestation of mammiferous animals is, in general, about a year, except in the large ones, and less in the small—as mice, rats, rabbits, hares, cats, &c.

The number of young varies according to species, but is fewest in the larger and longest lived animals, as whales, dolphins, and camels, which have only one or two; elephants, one in eight or ten years; goats, one, two, three, or four a-year; bears, one, two, three, four, but never five; sea lions, two; sheep one, and sometimes two; lions, four or more; foxes, from three to six; mice, five or six, four or five times a year; cats, four or five; bitches from four to eight, and even more; rabbits, six or eight, five or six times a-year; hares, three or four; rats, weasels, polecats, and martens—five, six, seven, or eight; marmots, three or four; roebucks, two or three, &c.

The duration of pregnancy varies according to species. Thus, rabbits carry their young for thirty-one days; cats, for fifty-six; bitches, for sixty-three; sheep and goats, for five months; deer, nine months; wolves, three months and a half; bears, eight months; foxes, from winter to April; the camel from spring to spring; the heifer or cow, nine months; the mare,

eleven months and some days; the elephant, several years; the whale, probably three or four years, and its offspring is large as a bull on coming into the world.

It has been observed that the breasts are generally double the number of the offspring; but there are many exceptions. The situation of these organs also varies. They are placed under the abdomen, and very much backward, in whales, dolphins, &c.; under the belly in cats, bitches, wolves, and most quadrupeds; under the navel in the tiger, &c.; between the thighs in the mare, ass, zebra, couagga, &c.; under the chest in tardigrades; two on the chest, and two near the navel, in the civet; under the chest in the bat, &c.

When animals have arrived at the end of their gestation they select a convenient and safe place for themselves and their young. The mare and cow are, perhaps, the only animals that bring forth their young upon the feet, and, similar to most other animals, present their breast to them.

Mammiferous animals, like reptiles, insects, and birds, are remarkable for maternal tenderness towards their young. All defend them with extraordinary courage, and often conquer larger animals than themselves.

On reviewing the history of reproduction in all animals, from the lowest in the zoological scale to man himself, we observe the closest analogy in this mysterious function. We also perceive its identity with that of the vegetable kingdom. In examining the habits of animals we are taught many instructive lessons on the reproduction and physical education of our species.

There is, however, a vast number of most interesting inquiries relative to these subjects, peculiar to mankind and society; and these must be noticed briefly and comprehensively. Among these are population, marriage, monogamy, polygamy; the influence of physical causes on fecundity—as age, temperament, habit, occupation, climate, season, plenty, famine, epidemic diseases, on the increase and mortality of population. These subjects interest all classes of society, and are now considered by legislators and physiologists, and affect every member of the human family. They form the most important portion of the history of the reproduction of animated beings, and are deeply interesting to nations and families. They have been dispersed through a vast number of medical works; but may be presented at one view to the scientific inquirer. They are a preface to human generation and the healthful reproduction of offspring.

Reproduction of Organized Beings.—Numerous causes favour the fecundity of animals—as aliment, season, climate, &c.; and in the human species, the temperament, habit, age, occupation, and a variety of other circumstances which deserve to be noticed, as they influence generation and population.

As a general proposition it may be maintained, that abundance of aliment increases the number of mankind and of animals; and that years of prosperity are remarkable for a greater number of births, and years of famine or pestilence for the fewest.

Maritime nations are usually observed to be very prolific.

Fecundity is greater in cold than in hot climates. The Icelanders have from fifteen to twenty children, the Germans six to eight, the French four or five, the Spaniards two or three. There are, however, individual exceptions, and some relative to climate. The Negresses in Africa have many children, and the Egyptian women very often two at a birth (Encyclop. Methodique, Art. Egypte). Baron Larrey informs us, that during the expedition of the French army to the east, there were many women who accompanied it who had no children in Europe, but became pregnant in

Egypt (Mem. de Chirurg Militaire). Many historians and travellers attribute the great fecundity of the Egyptian women to the use of the waters of the Nile; but I think that it might be as justly attributed to the perfect equality of the temperature of Egypt. M. Larrey states, that after the return of the French army from Egypt, in 1801, several women applied to Captain Roustan, on his arrival at Toulon, to purchase some of the prolific waters of the Nile.

It has been remarked, that there are fewest children in the affluent quarters of cities; whilst they are numerous in the poorer districts. In the former, nearly all the infants die, that are born. On the contrary, poor countries have a superabundance of population—as Switzerland, Savoy, Ireland, &c. The Turks, Asiatics, and Peruvians, who inhabit a delightful climate, and are allowed a plurality of wives, have their empires thinly populated*. "Man multiplies himself," says M. Virey, "in the United States of America, while he perishes without posterity in the neighbouring possessions of Spain; for the first is laborious and without luxury, the second enjoys ostentation and idleness; the one is free, whilst the other is subjected to an arbitrary yoke."

It appears by the registries, that there are more births than deaths in temperate countries.

Moderately cold nations generally present a greater population than the warm regions. The number of children in each family in Sweden is from eight to twelve, and sometimes from twenty to thirty (Rudbeck); and in frigid Iceland from fifteen to twenty. The excessive population of England, Denmark, Russia, &c., made incursions upon the Gauls, Italians, and Spaniards, and were in turn diminished by the crusades.

"The equatorial regions," says Virey, "notwithstanding their wealth, the profusion of their alimentary productions, the warmth and beauty of their climate, which so favour love; notwithstanding the superabundance of women, (polygamy), and the facilities of enjoyment, are less prolific, on account of many causes."

The body is relaxed and enfeebled by the heat, warm baths, and luxurious habits of the people; and is, therefore, less favourable for reproduction. These people generally abuse the pleasure of love, and are less fecund than the inhabitants of cold northern regions, who enjoy it in moderation.

It is an axiom, that fecundity diminishes in proportion as we advance from the poles to the equator.

"It is necessary for a fruitful marriage," says M. Virey, "that there should be a certain harmony between the sexes, both moral and physical; and this is manifested in the sympathies of instinct which, independently of beauty, makes us prefer one person to another. The sexes secretly wish their union by a natural impulse which cannot be explained, and which in a divided society renders us more attentive to one person than all the rest; and nature inspires us better in this respect than reason.

"This harmony consists less in similitude of temperament, age, &c., than in diversity; for if we remark, we observe a violent bilious man prefer a mild and modest companion, while a passionate impetuous woman finds most charms in a moderate tranquil man; so that one may be tempered by the other, whether they be too cold or too hot." It is also well known, that some married persons fail to have family, who are fruitful after a second union.

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* There is a custom among the Persian women of inducing abortion, for the purpose of retaining the affections of the husband, who declines to cohabit with any of his wives when pregnant, it being held indecent to approach a pregnant woman.

When the characters are very different, they cannot entertain the state of harmony as a frigid or ardent individual, until age or habit renders them more suited to each other; thus, married persons have passed fifteen or twenty years without infants, notwithstanding their most anxious desires. Abraham and Sarah, and Jacob and Rachel, are examples, mentioned in sacred writings.

When there is antipathy, disgust, hatred, or passion, conception seldom happens; though some of these obstacles may exist at first, as in women who pretend to be forcibly violated, but finally acquiesce in pleasure, and become pregnant; it is not, as yet, determined whether impregnation can be effected when a real hatred exists. There are, however, many examples recorded of married and unmarried women who were impregnated when in a profound sleep, as mentioned in the works on Medical Jurisprudence, and recently by Dr. Gooch (Outlines of Midwifery, 1832), and Dr. Kennedy (Elements of Obstetric Auscultation, 1834). In such cases there could not be much voluptuousness, though amorous dreams might employ the mind; but there was, at the time, no repugnance; for the former, or some degree of it, appears indispensable to the generation of a new being. It may be said, with truth, that that which commences with hatred finishes with love, when the transport of pleasure ravishes the will.

Marc is of opinion that the moral causes of sterility in both sexes, are—a fear to procreate, too vivid a desire to have children, an antipathy or incompatibility of humour between the sexes, negligence or apathy of the husband to the wife, the diseases and inconveniences of some wives, violent passion, and immorality or infidelity. He estimates the proportion of sterile to fecund women at 10 to 1000: Hedin, a Swedish minister, 1 to 10; Franck at 6 or 7 in 3 or 400. The fear of procreation often arises from the indigence and inability to support offspring; or, in the upper ranks, from the vanity of women, who imagine that conception and its consequences will diminish or destroy their charms, or deprive them of devoting that time to those frivolous pleasures which the rights of matrimony demand. Reserve and frigidity during the approach of the sexes, is also a cause of sterility*.

Fecundity is greater with some than with others. Haller knew families who had 16, 20, 28, and 30 children. A friend of mine knew a lady of title, who is still fine and youthful looking, who had 27 children. A patient of mine, at St. John's Hospital, had 32; and a woman, aged 70, appeared at the Police-office, Bow-street, in May, 1834, who stated that she was the mother of 40 children, and that her daughters had twins three or four times†.

M. de Stael asked Napoleon, who was the greatest woman in France? He answered—"She who has had most children."

Dr. Blundell seems to be of opinion, that fertility depends more on the female than the male sex. He mentions an example of two sisters, who bore three children each at a birth; and of a member of the profession in advanced life, nearly 80 years of age, whose lady had four children at one birth; which Dr. Blundell is disposed to attribute more to the fecundity of the wife than the husband. Hanhemann, the father of homœopathy, near 80, lately married a Parisian lady, aged 36. These, and similar cases, show the possibility of the truth of charges of violation against very old men.

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* A full account of the causes and treatment of the diseases which induce impotence and sterility, in both sexes, will be found in my Manual of Medical Jurisprudence and State Medicine—2d Ed. 1836—and in my work on Population, Marriage, and Divorce.

† Sir George Tuthill is said to have stated, that an Asiatic Russian had by his first wife 69 infants at 27 births; and by his second, 18 at 8 births—87 children. He was alive in 1782, and aged 75 years.—London Med. and Surg. Journ., vol. i, 1836, p. 768.

GUY'S HOSPITAL REPORTS.

Osteo-sarcoma of the Thigh — Premature Labour artificially induced—Breech Presentation.—Sophia B——, Dorcas ward, delivered of a still-born female child on the 21st June, 1835.

This woman was a patient of Mr. Key's, in Dorcas ward. She was admitted, labouring under osteo-sarcoma of the knee, involving the lower half of the femur and the heads of the tibia and fibula. Owing to the rapid extension of the disease, it was evident that no time ought to be lost before amputation, the only means of cure, was had recourse to. According to her reckoning, she was between seven and eight months gone in pregnancy. In order, then, to allow the completion of the period of gestation, and the usual time of recovery, an interval of two or three months would necessarily elapse before the performance of the operation, which, from the rapid growth of the local affection, would then be rendered unavailable. It was therefore thought advisable to induce premature labour.

Dr. Ashwell first attempted to effect this object, by detaching the membranes with his finger; but this proved insufficient for the purpose. He then punctured them by means of a catheter, containing a sharp-pointed silver wire, which, by communicating with a spring at the lower extremity, could be made to emerge at the point of the instrument, at the operator's wish.

Having introduced the fore-finger of the left hand within the os uteri, it served as a guide for the passage of the catheter, and thus the membranes were ruptured. An instant discharge of the liq. amnii succeeded, the whole of which was evacuated in three hours.

The membranes were punctured at half-past nine, A. M. on the 20th: at half-past ten she was ordered

Tinct. Secalis Cornut. m. xxx. ex Mist. Camph. ℥x. statim sumend.

This draught was repeated at two P. M. No uterine action was established till one P. M. on the 21st. The pains were then feeble and transient. Shortly, however, they became more vigorous; and at half-past four P. M. she was delivered of a still-born female child, under a breech presentation. It may be here observed, that twenty-seven hours and a half elapsed between puncturing the membranes and the commencement of labour, and fifty between the puncturing and the termination.

June 22. Has slept well: no lochia: no milk: breasts cool and flaccid: she feels comfortable, and is doing well.

On the 30th of June, Dr. Ashwell thought her sufficiently recovered to undergo the operation. Hardly a trace of the lochia had appeared, and milk was not secreted. Mr. Key amputated the limb; but, owing to the extension of the disease upwards, the tourniquet was obliged to be dispensed with, and pressure was made on the artery just below Poupart's ligament.

July 1. She appeared to have suffered very little from the effects of the operation: she was cheerful, and free from pain. Skin moist, pulse 82, soft.

She continued daily to improve: the stump was healthy, and every thing promised a favourable issue. She steadily advanced towards recovery for four or five weeks, although in a very emaciated condition. Suddenly, however, during the very hot weather, without any apparent exciting cause, she began to sink, and in spite of all efforts to maintain her power, she expired.

Sectio Cadaveris.—The head was not opened. The areolæ about the nipples were remarkably dark: the rete mucosum upon the breast and abdomen was also unusually dark, and rather spotted: there was a small soft tumour in the situation of the inguinal glands, on the right side.

The anterior part of both lungs appeared pale, and nearly ex-sanguine. The pleuræ appeared to be nearly or quite free from old adhesions; but there was some fluid effusion on both sides, with unequivocal traces of recent pleuritis on the left side, inferiorly and posteriorly; the pleura pulmonalis having, at this part, a thin layer of feebly concreted lymph slightly adherent to it: the accompanying fluid was turbid and sanguinolent. The corresponding portion of lung was of a deepish dull red, consolidated, and nearly impervious to air, and having some small detached spots, formed by collections of pus dispersed through it, and making their appearance upon the pleural surface; these spots appeared to be the result of the inflammation of particular lobules. In the same lung there was one small well-defined tubercle, scarcely so large as a small marble, exhibiting the peculiar structure dependent upon cysts, and rather of soft consistence: there was an equivocal appearance of another tumour, of smaller size. The right lung contained small collections of pus. These collections, like those in the opposite lung, appeared to be the result of acute inflammation of particular lobules. There was some recent inflammation in the surrounding pulmonary structure; but its appearance was modified by cadaveric infiltration. No malignant tubercles could be detected in the substance of this lung, but one small calculus was found imbedded in healthy structure.

The pericardium contained some fluid, but it did not appear to be unhealthy. The heart was flabby, and its substance very pale: it contained a feeble fibrous coagulum, with some fluid blood or serum.

The general appearance of the viscera of the abdomen was healthy; there was merely

a little effused serum, without any other indication of either old or recent peritonitis. The mucous membrane of the stomach was rather injected, and partly of a reddish dusky colour; but neither its texture nor its secretion appeared to be unhealthy. The duodenum was rather large; its internal surface granular, the glands of Brunner being remarkably pale and prominent. The mucous membrane of the ileum appeared to be perfectly healthy. The aggregate glands, even at the termination, were very faintly visible. The mucous membrane of the large intestines was but imperfectly examined, but where noticed, it appeared to be quite healthy. The absorbent vessels on the surface of the liver were beautifully distinct. The incised surface of the liver exhibited little distinction of acini; and the substance was of a somewhat smooth plastic consistence: the liver was not gorged with blood, and no tubercles of any description were detected in it. The gall-bladder was rather distended. The spleen was large, turgid, and of a remarkably dark colour: its incised surface exhibited a mottled appearance, conveying the idea that its dark colour was owing to sulphuretted hydrogen, the influence of which had not penetrated to every part. The emulgent veins were remarkably large, as was also the cava where it received them, yet, in both situations, the venous texture appeared healthy, but, immediately below, indications of inflammation commenced. A thin layer of concrete lymph slightly adhered to the internal surface of the cava; the coats of the veins were found increasingly thick, as the pelvis was approached, and at the termination of the cava, in both iliacs, as well as in some of their branches, they were nearly as thick as the coats of an artery. Though their calibre was large, they appeared, in some parts, to be corrugated, and they contained an opaque, tender, dirty-white coagulum, feebly adherent, and intermixed with more recent red coagulum, or with a dirty puriform fluid, which gave to these veins, when cut into, very much the appearance of little abscesses. Besides the opaque whitish concrete matter within the cava, opaque whitish spots were observed immediately beneath the lining membrane, at the most inflamed part: they bore the closest resemblance to the light atheromatous deposit so commonly seen beneath the lining membrane of the aorta. The veins in the pelvis, especially those connected with the uterus, seemed to have been inflamed during the longest time and in the greatest degree. The neighbouring cellular membrane was considerably indurated, but was generally pale, and showed no disposition to suppuration. The uterus was as much contracted as could be reasonably expected: its substance appeared quite healthy: its internal surface still retained the evident marks of recent delivery: the ovaries were large; the spermatic veins were large, but not inflamed: at most, they only contained recent coagulum. The femoral vein, and its branches in the stump, were generally inflamed, but not so much near the extremity as higher up. The last portions of the femoral vein and femoral artery were contracted upon clots of coagulated blood. The small tumour in the groin was caused by a suppurated absorbent gland, —the veins about it were filled with fluid pus. The epigastric vein was traced, in this state, for about four inches, where the vein appeared healthy. The internal surface of the inflamed vein was quite smooth: its thin coats separated from its sheath of inflamed and indurated cellular membrane, very much in the same way that the mucous membrane of the intestines may be detached from the other coats, in some cases of peritonitis. Besides the absorbent gland above mentioned, others appeared to be inclined to suppurate: and some of those accompanying the external iliac were a little enlarged, slightly indurated, and of a greyish colour; but there was no appearance of malignant disease in them, nor in any other organ except the right lung. There was a small collection of pus near the end of the stump.

Tumour in the Vagina.—Mrs. M., a widow, the mother of three living children, was taken in labour at 11, A. M. in January of 1834. The report commences at 4, P. M., when it was stated by the gentleman who had been in attendance that every thing was proceeding favourably. On examination, however, the left foot was found low down in the vagina, with the toes towards the pubes. The pains were irregular and inefficient, although it was stated they had been energetic. When they returned more vigorously, an attempt was made to turn the child's abdomen towards the sacrum of the mother, in order to facilitate its birth and protect its life. This effort was thwarted by *a firm solid body projecting into the upper portion of the vagina*, and so narrowing the passage as to oppose an effectual obstacle to an alteration of position, or to the further progress of the labour. The patient at this time was exhausted by her efforts: her pulse became quick, skin hot, &c., indicating a necessity for speedy delivery. Suddenly, however, she complained of something giving way, and, on examination, it was found *that all vestige of the tumour had disappeared*, and that a black, fetid, viscid fluid had been discharged, probably amounting in quantity to thirteen or fourteen ounces. The delivery was shortly afterwards effected, although a slight antero-posterior contraction of the brim retarded it: the child was still-born.

She appeared to rally an hour or two after the delivery, although there was a continual draining of the same *dark offensive fluid from the vagina*.

The following day she exhibited symptoms of collapse, with *great pain in the left iliac and lumbar regions*—the site of the tumour. As she had not emptied the bladder, a catheter was introduced, and about four ounces of urine were drawn off. In spite of all efforts at restoration, by stimuli, &c. she continued gradually to sink, and died on the evening of the second day.

An inspection was permitted. There were no traces of peritoneal inflammation. The uterus was found contracted to the size of a fœtal head, and there was no discernible lesion in it. *The left parietes had suffered pressure, from their proximity to the tumour.* There was found a *large cyst*, emptied of its contents, *growing from the ovary*, and which, if distended by fluid, would have occupied a space between the floating ribs and the cavity of the pelvis. The parietes of this cyst, in their lowest portion, had come in contact with the upper and left portion of the vagina, and, probably by the pressure of the gravid uterus, had been detained there, till, by the successive processes of inflammation and ulceration, they had adhered to, and eventually discharged their contents through the vagina. The vagina, in this part, was in a gangrenous state, and communicating, by an opening effected during the labour-pains, with the cyst. This rupture was doubtless the occasion of the sudden disappearance of the tumour, and the black fetid discharge.

Fourth labour.—Presentation of the Arm, with small and deformed Pelvis.—Mrs. E—— A——, aged 32.—On the 19th October, 1835, at 4, P. M., the patient said that the full term of pregnancy was complete, and that she had been suffering from slight pains during the greater part of the day. It was not, however, because she thought labour approaching that she sent for assistance; but she was uncomfortable and feverish, and had had a severe fit of shivering on the preceding evening: this was followed by heat over the surface of the body, by pains in the head and limbs, loss of appetite, and a sense of universal prostration. On inquiring into her symptoms, the pulse was found quick, the tongue dry and brown, bowels confined, and the urine of a peculiar colour, something like stale infusion of calumba; arising, no doubt, from disease of the mucous lining of the bladder, as she had more than once undergone the operation of *lithotrity*.

℞ Pulv. Rhei c Calomel. ℈i. statim. sumend.
—Sumat. Julep. Menth. c Sodâ ʒi. quartis horis.

About ten o'clock, P. M. the bowels had been well relieved, and the labour pains were expulsive.

On examination, the right hand and part of the fore-arm were found without the os externum: the thumb was somewhat towards the back of the pelvis, and the palm to the right side: the whole of the extremity was swollen and puffy: the liquor amnii had been discharged some hours. It was determined immediately to attempt the turning of the child; not without an apprehension of the difficulty of the process, owing to the waters having passed off, and from the pains recurring every five or six minutes. Before the attempt was made, 100 drops of tincture of opium were exhibited; and when the pains seemed less urgent, the introduction of the hand was commenced. The os uteri, which was pretty well dilated, was reached without much difficulty; but it required considerable effort to get beyond the promontory of the sacrum. The uterine cavity having been fairly entered, a search for the feet was made; but it was frequently necessary to desist, the contraction of the womb being so inordinately severe. At length a knee was touched; and after repeated, though fruitless attempts to turn, the hand was reluctantly withdrawn. Sixty drops more laudanum were now given, and, in apparently quiescent state of the uterus, the right hand was introduced, but with no other result than that already described. The feet and knees were high up in the fundus uteri. Mr. Lever now saw the patient; and, after the administration of another opiate, and the abstraction of ʒxvi of blood from the arm, he again essayed to turn the child, an hour having been allowed to elapse prior to the attempt. The uterus, notwithstanding what had been done, contracted so forcibly, and the promontory of the sacrum opposed so great an obstacle to the passage of the hand, that Mr. Lever was, after a renewed attempt, induced to give up further efforts. At half-past six A. M. of the 10th of October, Dr. Ashwell was requested to visit Mrs. A——. Before his arrival, she seemed disposed to sleep, but was suddenly seized, within half an hour after the last unsuccessful attempt at version, with violent shivering: she threw her head back; her features became contracted; her face pale; her pulse, which had previously been 120, full, and not easily compressed, was now imperceptible at the wrist; respiration very hurried and difficult, giving rise to an apprehension lest rupture of the uterus, or of some important organ might have occurred. Some brandy and water, with laudanum, were now exhibited, which having been very quickly repeated, she rallied. Dr. Ashwell now arrived.

When I first saw the patient whose case has just been narrated by Mr. Gorham, I found her recovered in great measure from the collapse; and the pulse, although quick, being 130 to 140 in the minute, was easily compressible. Independently of the effect which might perhaps justly be ascribed to the opium, there was about her an indication of weakness and exhaustion, far from

encouraging. The abdomen was tender to the touch; and the vagina and internal parts were hot, tumid, and sore. I made no attempt to turn; but had I done so, the narrowness of the conjugate diameter of the brim, the undue projection of the sacral promontory, and the very close and tonic contraction of the uterus about the child, would have opposed insuperable barriers. I recommended that she should be carefully removed into the hospital: a small ward having been prepared for her, where attentions could be given to her, which the poverty of her own dwelling entirely precluded. After giving some mild nutriment, and allowing her three or four hours of undisturbed quiet, during which she had some sleep, I made, at half-past one P. M., October 10th, an attempt to decapitate the child. Before taking this step, I examined very carefully; observing at the same time, that, owing to the circumstances already detailed, I should have to encounter the greatest difficulties. After attempting for nearly half an hour to reach the neck of the child, by the curved knife invented for that purpose, I desisted; finding that, by all the manœuvres I could practise, I could not advance sufficiently far. I stated, too, on this occasion, that the conjugate diameter was not *three* inches. At five P. M. I again attempted, though unsuccessfully, to dismember the child. After this period she took nourishment, and slept soundly for ten or fifteen minutes at a time.

At ten o'clock P. M., hoping that there might be some favourable change in the state of the fœtus or of the uterus, and under the full conviction that the patient's strength was rapidly failing, I attempted for the last time, to diminish the bulk of the child. I was not really more fortunate than in my former efforts, although I had perforated and partially exviscerated the chest in my first attempt: no force which I dared to employ was sufficient to reach the neck. I removed both arms near to the axillæ; and finding that the pulse was becoming very rapid and small, and that collapse was evidently approaching, I ceased from any further endeavour to accomplish my purpose. In a few hours she died. The diagram will abundantly explain why I was so unsuccessful; the position of the neck and head, being such as to preclude, opposed by such a promontory, the approach of the knife.

Inspectio Cadaveris, eight Hours after Death.—The abdomen was not tympanitic: the peritoneum presented nothing remarkable; excepting, that on the portion reflected from the fundus of the bladder to the uterus, there was a lamina of coagulated lymph, about four inches in length. The uterus was lying obliquely across the abdomen; its fundus, to the right, pressing upwards against the liver; while the os and cervix, at the brim, were lying in a corresponding direction, considerably to the left of the mesian line of the body. There was a slight laceration of the peritoneal tunic of the uterus, about an inch below the insertion of the round ligament, on the left side. The uterus was excessively distended with air, quantities of fetid gas constantly escaping from the vagina. The general colour of the uterus was tolerably natural; excepting about three inches above the fundus of the bladder, which was of a yellow green tint.

The stomach was pushed out of its place, to the left of the fundus uteri.

The acute edge of the liver did not project beyond the margin of the ribs, being closely packed in the hypochondriac space by the pressure of the uterus: the gall-bladder was full. The urinary bladder was nearly empty, and presented a beautiful carmine colour for three or four inches immediately above its neck: the labia were œdematous and livid. The pelvis was contracted in every dimension: the following are its accurate measurements, the whole of the pelvic viscera having been removed:

From the symphisis pubis to the promontory of the sacrum, which was unusually bulging into the cavity, not quite 2 inches 10 lines.

Lateral diameter of the brim, 4 inches 8 lines.

Left sacro-iliac synchondrosis to the right acetabulum, 4 inches 3 lines.

Right sacro-iliac synchondrosis to the left acetabulum, 4 inches 5 lines.

The round ligament on the left side was excessively stretched.

In cases of transverse presentation, there is a regular and defined scale of difficulty and danger.—1st, If such a presentation be discovered before the membranes are ruptured, and, the os uteri being sufficiently dilated, the favourable moment is seized for their artificial laceration, the hand will be introduced into the uterine cavity with facility (provided there is no pelvic deformity or abbreviation,) and the version of the fœtus will be accomplished nearly as easily as if its position were attempted to be changed in a barrel of water.

2dly, The difficulty will be increased, even where the pelvis and child are both standard, if the water has been long discharged, and the uterus, under strong and continued pains, has diminished considerably in size, and has closely contracted round the body of the child. It is quite possible, in such a case, that, having been foiled in a protracted or a repeated effort to turn, the subsequent embarrassments may be increased in so high a degree, as entirely to preclude the propriety and safety of further attempts: for it must never be forgotten, that it is totally unjustifiable to turn at all hazards, or to act upon the determination to overcome every obstacle by manual force.

Where the admission of the hand is impracticable without this appeal to brute strength, another plan of treatment ought to be adopted.

3dly, Of all the cases demanding version of the fœtus, the instance now related is one of the worst; combining weakness and irritability of the patient with a thoroughly-contracted uterus and a highly-deformed and abbreviated pelvis. Of such circumstances Dr. Gooch says: "*No case can occur, the management of which will be so difficult as that of an arm presentation with deformity of the pelvis. This combination has proved too much for the skill of the most experienced practitioners.*"

It may perhaps be asked, why the Cæsarian operation was not performed. In answer to this question, I reply, that, when I first saw the patient, such an operation was entirely inexpedient: its shock would, in all probability, have induced instant or very speedy dissolution. If the case could again occur at the full period, and the knowledge now attained were possessed, there could, I think, be little hesitation as to its propriety: but in the case as it then presented itself, it was known, that in two out of the three of her preceding labours delivery had been accomplished—*instrumentally*, and *most difficultly*, it is true, but still without any very dangerous result. The practitioner would therefore have been but very imperfectly justified, if, under such circumstances, he had entered on so slightly-hopeful an operation. It could not have been accurately known, till after death, that the pelvis had so deteriorated in its shape and dimensions. *Premature labour, artificially induced, is the treatment for such contraction and deformity as existed here.*

The following observations were contained in a letter which I have received from Dr. Hodgkin: and I have inserted them here, as they tend to give his authority in confirmation of the opinions already expressed by myself in the body of the paper.

"Before proceeding to make, as an appendage to thy paper, the few remarks which I am about to offer respecting those adventitious growths which are met with in the parietes of the uterus, and which are commonly known by the name of fibrous tubercles of the uterus, I would observe, that this term, which is inaccurate and fallacious, is the more to be regretted, because it has favoured the belief that these productions are of a nature *sui generis*, and altogether distinct from that of tumours of undoubted malignancy. A careful and patient examination will, I am satisfied, convince the accurate observer, that these growths essentially possess the structure of compound adventitious cysts, to which the malignant herterologue formations are to be referred. The appearance of fibres, which these tumours present, when a section has been made through them, is produced by the cut edges of the cysts of which the tumours are composed. If any doubt of the existence of this structure remain, after the incised surface has been carefully compared with the corresponding surface of other tumours unquestionably possessing this structure and belonging to the malignant class, it may be removed by the examination of the external surface of a tumour, when carefully detached from the substance of the uterus in which it is imbedded. We may then perceive, not only the nodulous form, but even portions of the cysts; although the intimate mutual adhesion of the subordinate parts, and the density and compactness of the structure which they constitute, are unfavourable to their complete dissection."

ST. THOMAS'S HOSPITAL REPORTS.

Operation of Trephining for Disease of the Cranium.—Pierre Robert, aged 36, a Frenchman, admitted October 22, 1835. Between seven and eight years ago, he was thrown from his horse, and fell upon his head. He was quite insensible for about three hours afterwards; but when he had in some measure recovered, he was again placed upon his horse, and rode home. He was suspected by all who saw him, to be intoxicated; and he was accordingly put to bed. He remained much in the same state for two days longer; when it was, for the first time, ascertained by his friends that he had received an injury to his head.

Dr. Robertson, one of the physicians to the Northampton Infirmary, was then called in; by whose direction he was bled and purged. For a time, his symptoms were all aggravated, and he was occasionally quite furious. He remained under medical treatment for nearly three months: at the end of which time he was considered to have perfectly recovered; and he once more followed his usual occupations, which were those of cook in the establishment of the Duke of Grafton.

Four years afterwards, he again came under medical care. For some time previously, a great alteration in his disposition and habits had been observed. He had always been remarkable for his quiet and good-natured behaviour. He was now becoming irritable, and was very easily excited; and his memory began to fail him. He continually complained of throbbing pains in his head. These symptoms were all referred to an over anxiety in attending to family affairs. After a time, he was observed to have paralysis of the right arm, and he was constantly in the habit of grating his teeth.

Dr. Probart, of Bury Saint Edmund's, visited him; and advised bleeding, cold applications to the head, blisters to his legs

and other things, the nature of which could not be learned. Under his care, he gradually recovered. He continued subject, however, to a reeurrence of his old symptoms; and sometimes, while they existed, his urine and fæces were passed involuntarily. At one time, when suffering from an attack, which was more than usually severe, his feet, from exposure to eold, were attaeked with sloughing; and according to his wife's aeeount, this was aeeompanied with marked alleviation of symptoms.

No further alteration took plaee for some time; and as his condition was such as entirely to unfit him for his employment, his wife brought him to town, and plaeed him under the care of Mr. Seott, of Broad-street, for at least two months. This gentleman, it appears, was the first who diseovered that there was a lump on his head, at the point upon whieh he fell; whieh was on the left side, and about an ineh below the posterior and superior parietal angle. He was recommended, by Mr. Seott, to visit Ramsgate. Here he remained for about eight weeks, and, apparently, with some little benefit. Six months afterwards he had another attack; that is to say, all his old symptoms, with paralysis of the right arm, returned With respeet to this paralysis, aecording to his wife's aeeount, it always oeeurred at the new moon; and certainly the only one whieh he had during his stay in the hospital was at that period. On the oeeasion just mentioned, Sir George Tuthill and Mr. Seott met in consultation, and preseribed for him. On the following day, however, Sir George ealled again, and stated that he was satisfied he eould do him no good; and he consequently did not afterwards visit him.

He onee more got the better of the attack: but in the course of eleven months he was visited by one of a mueh more severe nature. On this oeeasion, Mr. White, of Parliament Street, was consulted; who, however, declined undertaking the treatment of his case. He subsequently visited Paris. Here he remained for nearly a year; but after the two first months, he beame so mueh worse, that he entered as a patient at the Bieêtre, under the care of Dr. de Ferrus. While he remained in that hospital, it was not thought that any amendment had taken place; but he beeame very corpulent and stout. He returned to England; and a short time afterwards, Dr. Hodgkin was consulted. From the history of the case, Dr. Hodgkin suspected that the removal of a portion of bone by the trephine, at the part wherc a thiekened state of the bone was observed, would give him the only chanee of relief: in whieh opinion he was supported by Dr. Bright, Sir Astley Cooper, and Mr. Morgan. The man was therefore admitted into the hospital. His condition then was as follows.

He was almost continually talking of his business, and singing to himself. Having lived in England for the last ten years, he had aequired a knowledge of our language; but since his aecident, he had rarely conversed in it. He would now oeeasionally answer questions put to him in English; but it was very seldom that he gave an answer, except in Freneh. He had contraeted a habit, during the last few years, of continually grinding his teeth. He was cheerful, and very traetable: he ate, drank, and slept well. He complained of no pain, on pressure or otherwise.

After he had been in the hospital six days, he beeame decidedly worse; that is, he was very restless; did not sleep at night; could not be kept in bed; would run about, elapping his hands; and did other extraordinary aets; and when he had been in this state for two days, he had a slight attaek of paralysis of the right arm, and the pupil of the left eye beeame more dilated than that of the right. His head became still more affeeted. He was then ordered to have hydrarg. submur. gr. viij. On the following day, he was much worse, and quite ungovernable: his face was very much flushed; and he was continually oeeupied in pulling off his bed-clothes.

Nov. 3.—The day on whieh he was operated upon, he had passed a very bad night, with searcely any sleep. He was running about the room, and singing to himself. On seeing his wife, he began to ery; and after having told her that he was going to die, he laid on the floor and "cried like a child." Mr. Morgan removed a circular pieee of bone at the part where it has already been stated there was thickening. On the inner surfaee of the part removed, there was evident earies; the dura mater adhered very closely to the bone, and the membrane itself was in a thiekened state. Pulsation of the brain was not apparent.

Four hours after the operation, very high exeitement had taken place: the skin was very hot; the face much flushed; the pulse quiek and full: he avoided the light as much as possible. An artery, which had been divided, burst out bleeding, from which a very eonsiderable quantity of blood was lost; and then he beeame more tranquil, and for the first time for many months he called his wife by her name, and told her what had been done; asked for a cup of tea; and, about 10 o'elock in the evening, he fell asleep, and remained in that state for nearly ten hours. A simple poultice was placed on the wound. His bowels were freely open from medieine whieh he had taken the night before the operation. The dilated state of the pupil of the left eye had disappeared on the morning of the operation, before it had been performed.

He did not grind his teeth at all, the day after the operation: on which day he was removed into a separate room, where he said he should be much more comfortable. On the

evening of the 4th he was rather feverish: his pulse 100; tongue brown. It seemed desirable to bleed him, but he would not submit to the operation; he therefore had a strong aperient draught, which very quickly operated; after which he slept. On dressing the wound on the 5th, a quantity of sanious discharge was pressed out, with a little blood. He had grated his teeth very much on the previous evening, but during this day he had left it off. On the 6th, as there was puffiness and tumefaction of the scalp, Mr. Morgan made two or three incisions, to let out some confined matter: he bled freely. His pulse ranged between 79 and 80, during the day. On the 8th, he talked more freely and rationally than he had done since his admission. He began to talk English to those who could not understand his French, but, according to his wife, not more so than usual.

In this state he remained for some weeks; and as, during that period, no further amendment was observed, he was discharged from the hospital; the only apparent benefit from the operation consisting in a restoration of his power of conversing in English, and of his recollection of his wife.

Observations.—In other apparently analogous cases, after the removal of a diseased portion of bone, producing an alleviation of all previous symptoms of cerebral disturbance, the morbid structure has, I believe, been circumscribed, and has extended no further than the part removed. In the present instance, the scabrous appearance of the *whole* of the inner table of the removed portion clearly indicated the existence of a corresponding morbid change in *surrounding* parts; and to this may probably be attributed the want of that perfect relief in this case, which, under other circumstances, has been derived from a similar operation.

TURPENTINE IN IRITIS.

To the Editor of the London Medical and Surgical Journal.

SIR—In your Journal for the 4th of June last, I have seen a statement of some observations of Dr. Stoker, of Dublin, respecting the use of turpentine in iritis, made by him before the Medico-Botanico Society of London, upon the reading of a paper by Dr. Foot upon this subject to the Society. I have, in the Lancet for the 25th of June, replied to some other remarks of his made on the same occasion, and reported in that Journal likewise of the 4th of June, and regret I was not at the time aware of those contained in yours, or I should not now be under the necessity of troubling you.

In the Medical and Surgical Journal, the Doctor is reported to have said, "that he had witnessed some cases treated by this remedy, which *relieved*, but when employed *alone* it frequently failed;" and "he also stated that it was now seldom employed *alone* by the Dublin surgeons."

With regard to these remarks, I perfectly agree in the opinion, that it is impossible to misunderstand their meaning, qualified as they may appear to be by one or two accompanying, but still ambiguous words; and the more so, when they are coupled with others attributed to him in the Lancet, in which, on what authority I am at a loss to explain, he is reported to have said, that I myself had now absolutely abandoned it. As the Doctor, however, has thus freely expressed himself respecting my proposal, I trust he will have no objection to my endeavouring to defend it; taking, on his part, my reply to his statements in that spirit of good feeling which no doubt he wishes I should his remarks on mine.

Assuming, then, this as acceded to, I shall be very concise in what I have to say. And first, with respect to that part of his statement which attributes to turpentine a power only of *relieving* iritis, I cannot help thinking, that the mass of respectable and published evidence in support of its decided efficiency in that disease, is not only in direct contradiction to this, but that in opposition thereto he will find it rather a difficult matter now to persuade the profession to adopt those his views of it. But I am surprised that the Doctor did not find turpentine to succeed *alone*, at least in some of the cases he tried it in; for no doubt before he would have undertaken to pronounce on it in the very decided manner he has, he must have felt the necessity of having first tried it in a sufficient number of cases to have qualified him to do so. And it is certainly rather strange, that at least the same success did not attend his experiments, that appears to have attended others. I should like to know what were the symptoms of those cases in which he tried it, and upon which he made up his mind respecting it. Probably they were not cases of iritis; for with every respect for Dr. Stoker's medical acquirements—and there is no person can question them—I am not by any means prepared to admit his attainments in this branch of surgery to be such as to qualify him, without further proof, to have his evidence received in the case in this manner, and before the tribunal he has volunteered it. And indeed, in this respect, I trust he will excuse me, when I say that I doubt very much the identity of the morbid character of his cases; and for the reason I have just stated, namely, that if they were cases of iritis, at least the same average results might have been expected to have occurred to him as to others: yet he has not stated that he succeeded in a single instance. There are, no doubt, those who would try a newly proposed remedy of this description, rather with the hope of discovering that there was no foundation for it than any thing else; but this I by no means

would attribute to Dr. Stoker, known as he is, an advocate in the cause of science; and therefore I am the more surprised that he failed in all his experiments on the subject.

But the Doctor has said, "that the Dublin surgeons now seldom use it *alone* in iritis;" with what then do they use it? I know of nothing else than mercury; and when mercury is admissible, and that it does cure, it does it in so effectual a manner, that calling in any thing else to aid it would, in my humble judgment, be perfectly superfluous: and he appears to me to know very, very little of iritis indeed, or the manner mercury acts in that disease, who would think of employing any thing with it when administered for its cure. The Dublin surgeons would, I conceive, be paid a very poor compliment, were it to be said of them, that they use turpentine conjointly with mercury; or having once adopted that mineral, have recourse to turpentine on any account, except when the other has failed. But then, let me ask, what advantage is to be derived from its use? or what the object of employing it, if it only *relieves?*

The truth is, reverting to the indulgence I have claimed at the commencement of this letter, I do not think Dr. Stoker by any means acquainted with the opinion of the Dublin surgeons on the subject, at least so universally as this part of his statement would imply. Certainly he is or I am in error in this respect: for I am of opinion that they do use it, and frequently; and, further, for its intrinsic and *unaided* value alone. But this much I am certain of, that if they do not, they on several occasions withhold an advantage from their patients which they are altogether unjustifiable in doing; for I am equally certain, that if no other instance would demand it, that mercury, however general its utility, sometimes altogether fails, and sometimes is utterly inadmissible, and that in such instances turpentine is fully adequate to the cure, no matter what the testimony of Dr. Stoker on this point may be, or the nature of the cases from whence he has drawn his conclusions. There are no doubt in Dublin, as there are elsewhere, certain individuals to be met with, who, actuated by feelings unnecessary here to state, regret rather the discovery of any thing connected with the profession, however useful it may be or otherwise, and would seek to discourage it, no matter at what expense to the convenience of society; these may probably decline its employment under any circumstances, except for the purposes I have hinted at above. But there are likewise those impelled by far different sentiments, and such as might be expected from the members of the most learned profession; to such, if engaged in ophthalmic practice to any extent, not only does the insufficiency of mercury on some occasions appear, but their penetration, unbiassed by those feelings which must shackle the judgment, will frequently see where the cure may be effected by it with an expedition and absence of inconvenience that, I do say, cannot possibly be obtained from mercury under any circumstances, nay, where its presence or employment must defeat so desirable a result; and when so, they not only employ it, but employ it *alone*.

I am, &c.

HUGH CARMICHAEL.

Dublin, July, 1836.

The London Medical

AND

Surgical Journal.

Saturday, July 30th, 1836.

RE-OPENING OF THE LIBRARY OF THE COLLEGE OF SURGEONS.—THE MUSEUM.

THE Council of the College of Surgeons have come to the liberal decision of re-opening to the members, their own library, at the College, for three hours a time, three nights in a week. These bit-by-bit reforms, when added together, though they amount to something worthy of consideration, are not, however, the sort of proceedings which should so shortly precede a radical alteration in the medical affairs of the country, by the establishment of the New University. They are yet, nevertheless, proofs of the power which even the name of the expected Institution possesses over the minds of the promoters of monopoly. For a long space of years the members of the College of Surgeons have possessed no privileges, which in general belong to members of corporate bodies. They have had no power over the election of their own governors, scarcely admission to their own Museum, and only by particular favour and especial license allowed the privilege of reading their own books.

The diploma of the College of Surgeons, then gave, nothing but a nominal benefit to its purchaser.

Instead of being admitted as a member of the corporate body, he was in fact only nominally so; he paid his twenty-two guineas for a mere piece of paper, conferring on him no privileges, as far, at least, as the corporation was concerned. It is true, there has been a notion, and a very prevalent one, that there is much honour in being a Member of the College of Surgeons in London; in what such honour consists, however, it would be difficult to define, unless it be the possession of a piece of paper signed by a dozen eminent men, who certify to your competency to practise surgery. We say it would be difficult to account for the preference given to a diploma from the London College. Persons who know anything of the matter, are well aware that the examination there undergone, is by no means a strict one, is far from being sufficiently practical, and is inferior in point of usefulness, and as a test of knowledge, to that of almost every other medical corporation in the kingdom. The "shadow of a name," then, has been, and is the only basis upon which the popularity of the College of Surgeons in London has been founded. For many years, it will not be forgotten, the candidates for diplomas and members of the College were treated even with insult. The back door in Lincoln's-Inn-Fields, though it has ceased to be, yet lives in the remembrance of every member of the College.

Having said so much regarding the privileges of the members of the College, we may again return to the liberal offer of the Council in conceding to the members the right of entering their own library, for the space of nine hours weekly. It is said by the College authorities that medical men have more time to study in the evening than at other times. Granted; but are students not to be considered at all in this matter? What! is this large and valuable collection of books only to be seen for nine hours weekly, and that only by the members of the College? The Directors of the British Museum, stigmatized by the public press as being particularly close in these matters, actually allow every respectable person who can get a reference, to read in the library of that institution for six or eight hours daily, and the College of Surgeons shut up their collection from the students of surgery, who are obliged—and we know many instances in point—to seek in the British Museum for that kindness which they cannot receive from those in the profession for which they are studying. Shall it be said that the College of Surgeons is too poor to appoint proper assistants to the librarian for the purpose of supplying the readers with books? The stately edifice lately reared in Lincoln's-Inn-Fields, by the fees of the members, contradict such assertions. No! the cause of the exclusion is not to be found in the want of means to carry a more liberal plan into execution; it is at once discovered in that spirit of tyranny and monopoly which has pressed for so long a period on the general practitioner of this metropolis, and which, even in its *very liberal* moments, shows the cloven foot; and though it may for a time depart from its path, the foot-marks are left behind it. We contend that the Library should be opened daily for the space of eight hours to all Members of the College, to the whole profession, and to every student who produces a certificate from his teacher of being such. Such a step would then show a desire on the part of the College authorities to effect some real good, and confer some lasting advantage on the profession at large; as it is, their regulation only shows a desire still to retain their entire monopoly, but that fear has induced them to depart a little from it.

A few words regarding the Museum of the College. Here, we are willing to allow, the authorities have been more liberal, as far as regards the ad-

mission of the professional public. But look at the state in which that Museum is, and has been, for the last twenty years—of advantage only to those acquainted with the preparations; for as yet there has been no Catalogue published: portions of it, we know, have been printed, and it is said that the remainder is in progress; but see what a vast field of instruction and information has laid waste from the apathy of the Council of the College. The visiters to that Museum have been "few and far between," because, though pleasant to the sight, it has been rendered almost a useless ornament. We do not mean to insinuate any thing against the Curators of that Museum; on the contrary, we can testify to the politeness, information, and desire to impart it, which characterize them. But what are these two gentlemen—meaning no disrespect to them—in comparison with a well-arranged and proper Catalogue, which might be at all times consulted, and would render the Museum one of the best practical schools of pathological anatomy in the world. For upwards of twenty years has the vast and valuable collection of the great John Hunter laid useless and unprofitable. We trust that the first step after the immediate opening of the Library daily to all in the profession, will be the publication of a Catalogue to the Museum.

THE MEDICAL CLUB SYSTEM.

The Medical Club system is advancing with fearful rapidity through the country, and has even reached the Metropolis. "A self-supporting Dispensary" has been established by a practitioner at Pimlico, a prospectus of which we noticed the other day in a publication devoted to the interests of the working classes. It appeals to them on the score of *independence*, and proposes to supply them with medicines in "a way congenial to their feelings," while with the most glaring inconsistency, the prospectus informs the reader that the members will consist of honorary benevolent individuals, who wish to recommend patients for relief; and ordinary members, who themselves would receive *benefits* from the institution. Away, then, with the absurdity of proposing to make the patients independent of charity. It is but a system of quackery, and unworthy men belonging to a profession calling itself liberal; the basis on which such institutions is founded, is proved to be a bad one—the superstructure must necessarily not be good. We trust that the respectable portion of the profession, who see through the selfish motives of the institutors of "penny humbugs," will lose no opportunity of exposing them, and showing the facts in the right light. A more atrocious system of assassinating the interests of the profession, it was never our lot to notice. It strikes at the very foundation of all that has made the practice of medicine either honourable or useful.

Hospital Reports.

NORTH LONDON HOSPITAL.

Poisoning by Sulphuric Acid.

Amelia Redman, aged 45, was admitted June 7th, under the care of Dr. Elliotson. She was found by the porter on the steps of the Hospital, about 10 o'clock, A. M. Her appearance attracted notice; and on questioning her, she informed him that she had taken oil of vitriol, giving him at the same time a phial containing the remains of the poison. Mr. Taylor saw her immediately, and being satisfied of the nature of the poison, gave her a considerable quantity of prepared chalk and carbonate of magnesia in water. During the time this was preparing, some common water was given her, to dilute the acid. The above mixture was administered until it was evident the whole of the acid was neutralized. It was a ℥ ss phial, and she stated that it had been about three parts full; about two drachms remained, the rest she had swallowed, five minutes before her admission. There were two white stripes upon the chin, where the acid had run down. The lips, tongue, and lining membrane of the cheek, as far as it could be seen, were perfectly white, or of a light ash colour. She complained of severe burning pain in the fauces, gullet, and epigastrium. She could only articulate very indistinctly, and very short sentences; she swallowed with great difficulty, and the effort was often accompanied with a fit of coughing, so as to reject the fluid, but still a very considerable quantity of the antidote was got down. She vomited frequently during the time the antidote was being given. The fluid was not tested at the

time; but what she vomited immediately after, on being put to bed, was found to be quite neutral. Her dress, especially her shawl, was burnt in several places, and the texture quite destroyed. The burnt parts reddened litmus strongly, and the acid was found to be sulphuric. When first seen, the woman was pale, her pulse small, soft, and rather intermittent, but not frequent. The temperature of the surface was not altered. She gave Mr. Taylor a book, containing a a paper labelled "white precipitate," and a letter addressed to the person who should find her remains. She stated that she had not taken any other poison besides the sulphuric acid. Ordered

℞. Magnes. carbon. gr. xij.
Aq. puræ ℥ i gr. pro re nata.

12 o'clock. Having recovered a little from the collapse she was in, and complaining a good deal from burning pain along the œsophagus and at the epigastrium, together with tenderness at the epigastrium, an attempt was made to take some blood from the arm, with a view of moderating inflammation which must follow, but only 4 or 6 ounces could be obtained; it was of a very dark colour, and afterwards she seemed considerably weaker.

2, P. M. Dr. Elliotson saw her; she was still in a low, almost collapsed condition, surface pale, but scarcely cold: pulse 125, weak and intermittent. He thought the only thing that could be done in her present condition was to support her a little, and ordered her milk, mixed with lime water, as an ordinary drink. In the evening she became hot, and the pulse rose considerably, but this subsided the next morning early. She had a moderate quantity of sleep.

June 8, *mane*. Complaining less of pain and tenderness in the epigastrium, and swallows better than she did. Has continued to vomit at intervals ever since her admission, generally a whitish fluid, being apparently coloured by the antidote, which was administered frequently. The matter vomited was also neutral after the first. Has had more or less dyspnœa ever since she was put to bed, the obstruction appearing to be at the larynx; her respiration is also frequent. She complains of great thirst. To have cold water, as she desired it. Pulse small, weak and intermittent, and not particularly frequent. Skin not hot; sensorium is, and has been unaffected. Towards evening she again became feverish, and had more dyspnœa, and complains a good deal of pain in the throat. The cellular tissue under the chin was swollen a good deal from the inflammation, arising from the acid running over the chin. Mr. Taylor, apprehending danger from the possible supervention of œdema glottidis, ordered twelve leeches to be applied to the throat.

9. She died at 3 o'clock, A. M. The nurse said she had gone off very easily, and had no more dyspnœa than usual, but had gradually sunk. She took some tea several times yesterday. She had several motions, which presented no peculiar appearance.

Autopsy, 12 hours after Death.—The mucous membrane of the tongue and pharynx was found converted into a soft, whitish, pulpy substance, which had peeled off in some places, and was easily removed in others. The inferior, as well as the superior surface of the epiglottis, was similarly affected. The interior of the larynx healthy; presenting no marks of any of the acid having entered it, the rima glottidis forming the boundary of the parts with which the acid had come in contact. The œsophagus was contracted, and thrown into longitudinal folds, on the most prominent part of which the mucous membrane was corroded, and the muscular fibres at some places exposed; at other parts a thinner layer peeled off, apparently the altered epithelium. On the external surface of the stomach were several spots of a deep red colour; this organ was strongly contracted, and its mucous membrane deeply corrugated, the rugæ presenting different appearances: from some, the mucous membrane was entirely removed; in others, converted into a soft, white, pulpy substance, and at a few points the rugæ were of a dark or black colour. The intervals between them, at some parts, were merely inflamed, being highly injected, and of a deep red colour. The track of the acid, as it passed into the stomach, was distinctly marked at the lower part of the œsophagus.

The duodenum and other intestines natural, presenting no appearance of the acid having passed the pylorus. The bladder collapsed. The remains of old adhesions existed between the pleura. The lungs much congested, and of a very dark colour.

Paronychia.

Benjamin Batt, aged 26, a servant, was admitted on the 23rd of June, under the care of Mr. Liston: general health good. Ten days since he pricked his thumb with a fork-brush, after which it became red, swollen, and very painful. Matter was formed, and has been evacuated three times. Fomentations and poultices have been applied.

Warm water dressings to be used.

June 24. Mr. Liston examined the thumb. Three openings presented themselves: one on each side, and one at the top. Out of these some pus oozed. On introducing the probe, the last phalanx was found diseased. A bistoury was introduced at the opening in the top of the thumb through that in the side, the intervening parts cut through, and the diseased bone removed with the forceps. Water dressings continued.

June 27. Going on well in every respect.

June 29. A bandage to be applied round the thumb.

July 1. Wound cicatrizing. Thumb less in size, and of the same length as its fellow.

July 6. Wound healed: discharged cured.

Mr. Liston remarked of this affection, that it generally arose from puncture, or bruise, from inflammatory action following compound fracture and dislocation, and often from no assignable cause. He considered it to be frequently epidemic, as he had noticed it to be very prevalent at particular times. Paronychia occurs in various degrees: sometimes it is merely superficial, sometimes it extends to the fibrous structure between the cellular tissue and the sheath of the tendon, or it may extend to the true sheath of the tendon, and sometimes attacks the bone itself and the articulations. The symptoms of this affection are violent pain over the phalanges: the part is hot, throbs, and swells, but the pain is not relieved by the swelling. There is a great degree of fever, furred tongue, headach, thirst, with other symptoms of constitutional disturbance, and the patient has restless nights. If not speedily attended to, the disease soon runs its course: the inflammation extends from one phalanx to another, until the whole finger is affected. It then attacks the hand: the palm becomes hard, painful, and swollen; and when the case has gone on to some extent, swelling takes place above the annular ligament. Matter becomes effused in the course of forty-eight hours with sloughing of the cellular tissue, there is sometimes sloughing of the tendons, the phalanges are affected with necrosis or ulceration, or the apparatus of one or more of the articulations become involved. In severe cases all these parts are affected: in some instances there is mortification of the whole finger, in fact, gangrene follows the intense inflammation.

The treatment in cases of whitlow, if in the early stage, the inflammation must be attempted so be subdued, by paying attention to the bowels, the local abstraction of blood, either by punctures or leeches, hot fomentations assiduously and regularly applied: in this way the inflammation may be frequently arrested. Of course if there should be any foreign body in the part, you will at once extract it. You will, after and during the antiphlogistic treatment, keep the arm constantly elevated, to favour the return of blood. You will also give saline medicines and purgatives. In more severe cases, free incision of the part, for the purpose of relieving the tension, and unloading the vessels will be found to be beneficial. You will employ fomentations and poultices after this until the swelling begins to disappear, and the discharge to decrease, and you will complete the cure by bandaging, and suitable applications to the sore.

Where there is destruction of the articulating apparatus, with ulceration of the opposed surfaces of the bones, which is known by indolent swelling around, by unhealthy and profuse discharge, and by distinct grating being produced on moving the joint. Amputation of the finger above the diseased articulation is then advisable; or if the patient will not consent to lose any portion of his finger, you will then keep it by splints and bandages in a semi-flexed position until anchylosis has taken place. The finger, however, is then worse than useless, as it is constantly in the way, and patients will sometimes require you to amputate it, after having at the first peremptorily refused to submit to any operation.

Simple Somnambulism in a Healthy Female, and correct Decisions made by her on the Diseases of others—Her Diagnosis and Prognosis in the Case of one of the Committee—The same in two Patients of the Committee's Reporter.

"Mad Celine Sauvage was placed in a state of somnambulism, in presence of the committee, on the 18th and 21st of April, the 17th of June, the 9th of August, the 23rd of December 1826. and 13th and 17th of January and 21st of February 1827.

"In passing into the state of somnambulism, she experienced a coolness of several degrees, appreciable by the thermometer; her tongue, from being moist and flexible, became dry and wrinkled; her breath, until then sweet, became fetid and repulsive.

"The sensibility was almost entirely annihilated during the continuance of her sleep, for she made six inspirations, having a bottle filled wirh hydrochloric acid under her nostrils, without manifesting any emotion. M. Marc pinched her wrist; a needle used in acupuncture was thrust to the depth of three lines into her left thigh; another, to the depth of two lines into her left wrist. These two needles were united by means of a galvanic conductor; very perceptible convulsive motions were produced in the hand; and Mademoiselle Celine seemed quite unconscious of all that was done to her. She heard the voices of persons who spoke close to her and touched her, but she did not remark the noise of two plates which were broken beside her.

"It was while she was sunk in this state of somnambulism, that the committee recognized in her three times the faculty of discoursing upon the diseases of other persons whom she touched, and of pointing out the appropriate remedies.

"The committee found, amongst its own members, one who was willing to submit to the investigations of this somnambulist. This was M. Marc. Mademoiselle Celine was requested to examine attentively our colleague's state of health. She applied her hand to his forehead, and to the region of the heart, and in the course of three minutes she said, that the blood had a tendency to the head; that, at that moment,

M. Marc had pain on the left side of this cavity; that he often felt an oppression, especially after having eaten; that he must often have a slight cough; that the lower part of the breast was gorged with blood; that something impeded the alimentary passage; that this part (pointing to the region or the xiphoid cartilage) was contracted; to cure M. Marc, it was necessary that he should be copiously bled; that cataplasms of hemlock should be applied, and that the lower part of the breast should be rubbed with laudanum; that he should drink gummed lemonade; that he should eat little and frequently, and that he should not take exercise immediately after having made a meal. We were anxious to learn from M. Marc whether he experienced all that this somnambulist had announced. He told us that, in reality, he felt an oppression when he walked, upon leaving the table; that, as she announced, he frequently had a cough; and that, before this experiment, he had felt pain in the left side of the head, but that he was not sensible of any impediment in the alimentary passage.

"We were struck with this analogy between the feelings of M. Marc and the announcement of the somnambulist; we noted it with care, and awaited another opportunity of procuring a new confirmation of the existence of this singular faculty. This opportunity was presented to the reporter, without his having sought it, by the mother of a young lady, whom he had attended for a very short time. The patient was from twenty-three to twenty-five years of age, and had been afflicted, for about two years, with dropsy of the abdomen (*ascites*), accompanied with a number of obstructions, some of the size of an egg, some of the size of the fist, others as large as a child's head, which were situated principally on the left side of the belly. The belly externally was unequal and corrugated, and these inequalities corresponded to the obstructions which had their seat within the abdomen. M. Dupuytren had already punctured this patient ten or twelve times, and had always withdrawn a large quantity of clear, limpid albumen, without smell, and without any mixture. An alleviation of the symptoms always followed this operation. The reporter was once present at this operation, and it was easy for M. Dupuytren and him to ascertain the size and the hardness of these tumours, and, consequently, to become sensible of their inability to cure this patient. Nevertheless, they prescribed different remedies, and they attached some importance to the putting Mademoiselle —— upon a regimen of goat's milk, the goat having been previously subject to mercurial frictions. Upon the 21st of February 1827, the reporter went in search of M. Foissac and Mademoiselle Céline, and conducted them to a house in the street of the *Faubourg du Roule*, without mentioning the name, or the residence, or the nature, of the disease of the person whom he wished to submit to the examination of the somnambulist. The patient did not appear in the room where the experiment was made until M. Foissac had set Mademoiselle Céline asleep, and then after having placed the hand of the one in that of the other, she examined her during eight minutes, not as a physician would do, by pressing the abdomen, by percussion, by scrutinizing it in every way, but merely by applying her hand repeatedly to the stomach, the heart, the back, and the head. Being interrogated as to what she observed in Mademoiselle, —— she answered that the whole belly was diseased, that there was in it a scirrhus and a large quantity of water on the side of the spleen, that the intestines were very much puffed up, that there were pouches containing worms, that there were swellings of the size of an egg, containing a puriform matter, and that these swellings must be painful; that at the bottom of the stomach there was an obstructed gland (*glande engorgée*) of the thickness of three of her fingers; that this gland was in the interior of the stomach, and must injure the digestion; that the disease was of old standing; and, finally, that Mademoiselle must have headachs. She prescribed the use of a diet-drink of borage and nitrated Peruvian bark (?) (*chiena ennitrée*), five ounces of the juice of parietary taken every morning, and a very little mercury taken in milk. She added, that the milk of a goat, which had been rubbed with mercurial ointment half an hour before drawing it off, would be the most proper.* Besides, she prescribed cataplasms of flowers of elder constantly applied to the belly, frictions of this cavity with oil of laurel, or, instead of it, with the juice of this shrub combined with the oil of sweet almonds, a clyster composed of a decoction of Peruvian bark (*kina*) mixed with an emollient decoction. The diet should consist of white meats, milk and flour, and no lemon. She allowed very little wine, a little orange-flower rum, or the liqueur of spiced mint. This treatment was not followed, and if it had, it could not have saved the patient. She died a year afterwards. As the body was not opened, we could not verify what had been said by the somnambulist.

"Upon an occasion of great delicacy,

* "Without attaching much importance to this singular agreement between the prescription made by the somnambulist, of the milk of a goat rubbed with mercurial ointment, and the same prescription recommended to the patient by M. Dupytren and the reporter, the committee were bound to notice this coincidence in their Report. It is presented as a fact, of which the reporter guarantees the authenticity, but of which no explanation can be given."

when very able physicians, several of whom are members of the Academy, had prescribed a mercurial treatment for an obstruction (*engorgement*) of the glands of the neck, which they attributed to a syphilitic taint, the family of the patient under this treatment, alarmed at the appearance of some serious consequences, wished to have the advice of a somnambulist. The reporter was called in to assist at a consultation, and he did not neglect to take advantage of this new opportunity of adding to what the committee had already seen. He found the patient to be a young married woman, Madame La C—, having the whole right side of the neck deeply obstructed by a great congerics of glands close upon each other. One of them was opened, and emitted a yellowish purulent matter.

"Mademoiselle Celine, whom M. Foissac magnetized in presence of the reporter, placed herself in connexion with this patient, and affirmed that the stomach had been attacked by a substance *like poison;* that there was a slight inflammation of the intestines; that, in the upper part of the neck, on the right side, there was a scrofulous complaint, which ought to have been more considerable than it was at present; that, by following a soothing treatment, which she prescribed, the disease would be mitigated in the course of fifteen days or three weeks. This treatment consisted of some grains of magnesia, eight leeches applied to the pit of the stomach, water-gruel, a saline cathartic every week, two clysters each day—one of a decoction of Peruvian bark (kina), and, immediately after, another, of the roots of the marsh-mallow,—friction of the limbs with ether, a bath every week; food made of milk (*laitage*), light meats, and abstinence from wine. This treatment was followed for some time, and there was a perceptible amelioration of the symptoms. But the impatience of the patient, who did not think her recovery proceeding with sufficient rapidity, determined the family to call another consultation of physicians, who decided that she should again be placed under mercurial treatment. From this period, the reporter ceased to attend the patient; and he learnt that the administration of the mercury had produced very serious affections of the stomach, which terminated her existence after two months of acute suffering. A *procés-verbal* upon opening the body, signed by MM. Fouquier, Marjolin, Cruveilhier, and Foissac, verified the existence of a scrofulous or tubercular obstruction of the glands of the neck, two small cavities full of pus, proceeding from the tubercles at the top of each of the lungs; the mucous membrane of the great cul-de-sac of the stomach was almost entirely destroyed. These gentlemen ascertained, besides, that there was no indication of the presence of any syphilitic disease, whether old or recent.

"From the preceding observations it follows, 1, That in the state of somnambulism, Mademoiselle Celine pointed out the diseases of three individuals with whom she was placed in magnetic connexion; 2, That the declaration of the first, the examination which was made of the other after three punctures, and the post-mortem examination of the body of the third, were found to correspond with the annunciations of the somnambulist; 3, That the different modes of treatment which she prescribed, do not exceed the limits of that circle of remedies with which she might have been acquainted, nor the order of the things which she might reasonably recommend; and, 4, that she applied them with a species of discernment."

The literary labours of the committee here draw near their termination, and after a repetition of declarations relative to the care and distrust with which they have throughout proceeded, they add the following general opinion on the subject which has so long occupied their attention:—"We may add, that we are far from thinking that we have seen all that magnetism is capable of presenting; we do not, therefore, pretend to desire you to admit, as an axiom, that there is nothing positive in magnetism beyond what we have noticed in our report. Far from setting limits to this part of physiological science, we hope, on the contrary, that a new field has been opened up to it; and, warranting the authenticity of our own observations, presenting them with confidence to those who, after us, may wish to engage in the investigation of magnetism, we shall only deduce from them the following conclusions."—These conclusions we do not feel it necessary to give. They are precisely such as the facts now before our readers appear to justify all impartial men in drawing, and no other. One or two sentences, however, may be appropriately added to what we have already extracted. Thus, the committee say:—

"We saw only one person who fell into somnambulism upon being magnetized for the first time. Sometimes, somnambulism was not manifested until the eighth or tenth sitting."

"While in the state of somnambulism, the patients, whom we have observed, retained the use of the faculties which they possessed when awake. Even their memory appeared to be more faithful and extensive, because they remembered every thing that passed at the time, and every time they were placed in the state of somnambulism."

"Upon awaking, they said they had totally forgotten the circumstances which took place during the somnambulism, and never recollected them. For this fact we can have no other authority than their own declarations."

"Considered as a cause of certain physiological phenomena, or as a therapeutic

remedy, magnetism ought to be allowed a place within the circle of the medical sciences: and, consequently, *physicians only should practise it*, or superintend its use, as is the case in the northern countries."

The "Appendix," subjoined by Mr. Colquhoun, contains many curious and interesting statements relative to (in so many words) the faculty, during catalepsy and somnambulism, of seeing and reading with the stomach, fingers, and toes. Start not, gentle reader. After what you have already herein recorded, you may justly be astonished at nought. The report of the French committee commands us to give attention to much which has hitherto been published, and thrown aside with contempt by disbelievers in animal magnetism. The nature of the almost incredible transference to which this appendix relates, can hardly be better dscribed in few words than we find it in the following passage, extracted from a note at page 225:—

"Van Ghert, in his account of the magnetic treatment of the Demoiselle B., mentions a similar circumstance. In that case, he observed the transference of the faculties to the pit of the stomach: and the patient gave the following description of her feelings:—'When you fix your thoughts intensely upon me, I can see every thing; at these times, the eyes and the brain leave my head, and take up their residence beside the stomach. Wonderful as this may appear, I assure you that it is true. When I am startled or you are disturbed, then the eyes and the brain return to my head.'"

For a knowledge of the alleged facts which Mr. Colquhoun has accumulated in this branch of his work, we shall refer the curious to the volume itself, which we now close, having afforded our readers abundant proof of the interesting nature of its contents. —*Lancet.*

We have devoted many pages to the insertion of the review of Mr. Colquhoun's volume on this strange, yet interesting subject. Many may blame us, but the wonderful and curious cases reported by the committee cannot be read without exciting that spirit of inquiry not easily satisfied.—*Jamaica Physical Journal.*

ON THE PRESENT STATE OF MEDICINE IN SPAIN.

As it may be some time before we receive the full report on the state of Medicine and the Medical Institutions in Spain, which is in preparation for us by a distinguished physician and scholar of that country, we present our readers, in the meanwhile, with the following short extract of a letter, just received from our medical correspondent at Madrid, and which possesses a melancholy interest, from the illustration it affords of the miserable state of the medical profession in that fine but long misgoverned country.

"The medical profession in Spain, as regards its present condition, is in complete harmony with every thing else; that is to say, it is in a state of revolution. Medical men belong, and with few exceptions have always belonged, to the Liberal party; and the class of *pure Physicians* consisted, almost to a man, of warm Constitutionalists, in the year 1820. By the term pure physicians we understand, in Spain, all those who belong to the universities, in contradistinction to those who belong to the colleges of surgery. When the Constitution was overthrown in 1823, the then absolute king, Ferdinand, incensed against the whole body of pure physicians, worked them all sorts of annoyance, and with much success, as you may believe. At last, and with the view of punishing them most effectually, he issued a decree, in which he commanded that no pure physician should be employed in the palace, the hospitals, or any other establishment under government; that is to say, in any public situation whatever, since in Spain all establishments are more or less under the control of the government, and, to supply their places, he converted surgeons into physicians by royal order, commanded that the colleges of surgery should be of medicine also, and created a great many young men at that time in the colleges *Physician-Surgeons*, (Medico-Cirujans,) as they are called. The pure physicians, thus expelled from the court, hospitals, the establishments for mineral waters, &c. were compelled to bear their wrongs in silence till Ferdinand died. Since that event they have been in open war with the Board of Medicine, the members of which are the same physician-surgeons now to the queen as they were before to Ferdinand. Unfortunately for the pure physicians, the president of the board, one of the physicians made by royal command, enjoys the confidence of the queen, and until lately has been able to resist the attacks, not only of the physicians, but even of the Cortes, by whom the edict of Ferdinand has been unanimously condemned. At length, however, in consequence of the late revolution, and consequent change of government, the president has resigned, and there is now a general expectation that the medical profession will be restored to order."—*British and Foreign Med. Review. No. I.*

Chair of Anatomy in the London University.

Mr. Mayo, and Dr. Lizars, of Edinburgh, are among the candidates for the vacant chair of Anatomy and Physiology in the University of London.

BOOKS.

Homœopathy and Allopathy? or Large, Small, and Atomic Doses? By David Uwins, M. D.

THE

London Medical and Surgical Journal.

No. 28. SATURDAY, AUGUST 6. Vol. I.—(1836).

CLINICAL BULLETIN
OF
THE BALTIMORE INFIRMARY.

BY E. GEDDINGS, M. D.

Professor of Anatomy and Physiology in the University of Maryland.

The Baltimore Infirmary is under the government of the University of Maryland, and was established expressly, as a Clinical School for the medical department of that Institution. It is situated in a healthy part of the city, in the vicinity of the university, so as to be of easy access to the medical class, during the period of their attendance upon the lectures. It has eight wards, and about ninety beds. Three wards are appropriated exclusively to seamen; three to white male citizens; one to females, and one to blacks. Patients are admitted on paying three dollars per week, which entitles them to all the advantages of the house; and during the winter session of the university, each professor is at liberty to admit a limited number of cases on charity, when they possess a character of interest for clinical instruction. Many individuals of respectability and standing enter the house for medical and surgical assistance, and most of those who resort to it, besides the seamen, are industrious mechanics and labourers. Since the commencement of the extensive scheme of public works, which have been carried on for the last few years in the neighbourhood of Baltimore, a considerable portion of the patients have been labourers from the several rail roads, many of them even coming from Harper's Ferry, and other remote sections of the works. Amongst these, accidents have been frequent, and during the summer and autumnal months, they furnish numerous cases of fever and dysentery. Many individuals also resort to the institution from remote parts of the state, and from the adjacent portions of Virginia and Pennsylvania, to have important surgical operations performed, and to be treated for important diseases. From these various sources, abundant materials for clinical instruction are furnished, and the institution may be justly considered one of the best clinical schools in the country. The average number of patients in the house at one time, during the present year, has been from sixty to seventy, and the aggregate number admitted in the course of the year, is about seven hundred and fifty or eight hundred.

The affairs of the house are under the direction of a Superintendant, and its internal economy is attended to exclusively, by the Sisters of Charity, who devote their constant and unwearied attention, with a kindness truly sisterly, to the comforts of the sick. The professional services are rendered by two surgeons, and three physicians, consisting of the Professors of the medical department of the university, who attend alternately. Professors Hall and Smith have charge of the surgical department. Professors Potter, Dunglison, and myself, of the medical—the term of duty of each embracing a period of four months. There are besides, four resident pupils, who prescribe for the sick in the absence of the physicians and surgeons, and carry all their directions into effect.

During the winter months, the institution is attended by the Professors of the practice of medicine and surgery, who make their visits daily, accompanied by the students, and deliver clinical lectures on their respective cases twice a week. My term of duty commences on the first of July, and terminates on the first of November, thus embracing the most sickly months in the year, and a period at which there is generally admitted, a great proportion of cases of fever and dysentery. As I propose occasionally to occupy the pages of this journal with some of the most interesting results of the excellent field of clinical experience thus afforded me, I shall offer a few remarks, in the present number, upon some of the diseases which have come under treatment during the first eight weeks of my term of service. As there is no regular case book kept in the house, except the hasty notes made by the resident pupils for their own use, many interesting details, and important facts, must necessarily be lost; but with

the assistance of the notes kept by the young gentlemen of the house, who have obligingly furnished me with them, I shall endeavour to make up a report, embracing a few of the most interesting cases.

1. *Gastric, or more properly Intestinal Fever.*—There is, perhaps, no disease, which presents itself under more numerous shades and modifications, than the summer and autumnal fevers of malarious regions—those of each season have their peculiarities, and even at different periods of the same season, they experience changes, either dependent upon temperature, or other causes, which require the treatment to be varied. They are likewise so much under the influence of local circumstances, habits, occupations, &c., that it is not unusual to find the disease of the same autumn, even within the limited compass of a few miles, displaying itself under a variety of forms, each one exacting some slight difference in the mode of treatment. Hence the clashing, and apparently contradictory descriptions furnished by authors, of the same disease, and the very opposite and dissimilar methods of treatment laid down by them. Hence too, the almost infinity of appellations which have been applied to the disease, most of them predicated upon some accidental phenomenon occurring during its progress. In some seasons and situations, the fevers of autumn are characterised by a high degree of disturbance of the functions of the liver, stomach, and duodenum, giving rise to a copious secretion of vitiated bile, which is ejected in great quantities, both by vomiting and stool, or by intense irritation of the mucous membrane of the stomach and duodenum, together with overwhelming congestions of the liver and the portal circulation generally, and a consequent suspension, or impairment of the hepatic secretion. To this variety of the disease, the denomination of bilious has been applied, and from the alternate remissions and exacerbations which attend it, it has been called bilious remittent fever. This form of fever has been well described by the Greek physicians, and in more modern times, it has been observed so frequently, especially in warm latitudes, and in marshy districts of country, as to give rise almost universally to the application of the term bilious remittent fever, to the different varieties of the febrile affections of autumn. Much mischief has been produced by this general extension of the term, and it is particularly important, that it should be restricted to those cases in which there is a marked implication of the hepatic function, or to the bilious fever as it has been described in modern times, by Baillou, Tissot, Fink, Chalmers, Stoll, Burnet, Johnson, Jackson, Annesley, and many of the other writers on the diseases of India, and other warm latitudes.

Another variety of fever is that in which symptoms of gastric disturbance are predominant. Under such circumstances, the disease falls with its principal force upon the stomach, and frequently upon the upper part of the duodenum. When this latter organ is much affected, there is, besides, in many cases, more or less consecutive disturbance of the liver, giving the disease something of the character of bilious fever. When the disease affects the stomach chiefly, it has been very properly denominated gastric fever, or, by the proselytes of the Broussaian school, gastro-duodenitis. When to the other symptoms are superadded such as denote a disturbance of the liver, the term gastro-duodeno-hepatitis has been employed, by the advocates of the same doctrines, to designate the parts implicated. This variety of fever not unfrequently presents itself under a form of great intensity, an example of which is furnished by the yellow fever, which seems to fall with its principal force upon these three organs.

It should be remarked, however, that the term gastric fever has been employed in a kind of generic sense, comprising all those forms of the disease, the chief seat of which is either the stomach, or any part of the intestines. To such an application of it there are strong objections, inasmuch as there are numerous cases in which nearly the whole violence of the disease is sustained by the lower part of the small intestines, the stomach being but slightly affected, and only suffering in consequence of its close sympathies with the principal seat of the disease. This distinction, it is important to observe, in reference to the form of the disease which will form the principal subject of the following remarks, as in it the sufferings of the stomach have been found to be trifling, compared to those which were experienced by the lower parts of the ilium and the cœcum. These two organs, especially the former, have been found in every case which has been examined, to constitute the points upon which the fever inflicted its greatest ravages, the implication of other parts of the system being merely consecutive, and though often considerable, yet never equalling in intensity the affection of the lower part of the ilium. Hence, when the disease assumes this form, it is more particularly entitled to the appellation of intestinal fever—a term which has been very appropriately employed by some of the best writers on the subject, and which should be preferred to any other, if the term fever, in its ordinary acceptation, is to be retained; because it more clearly defines the seat of the disease, and, consequently, points more directly to the indications to be fulfilled in its treatment.

Besides the terms bilious and gastric, which, as I have previously remarked, have been applied indiscriminately to all the varieties of the autumnal fevers of malarious

regions, they have received various other appellations, predicated, for the most part, upon some accidental complication observed in their progress. Amongst these, it may be sufficient to enumerate the appellations of mucous, pituitous, typhoid, nervous, ataxic, adynamic, mesenteric, and various others, which have been applied to the same disease, under some one or other of its numerous shades. To the same head must also be referred several other names, of more modern origin, which have been employed to represent this form of disease: as, for example, gastro-enteritis, follicular enteritis, dothinenteritis, iliodicliditis, &c. Those who have adopted these latter appellations, either regard the fever merely as a consequence of local inflammation of the mucous membrane of the alimentary canal, or adopt the opinion that the inflammation of the mucous follicles of the intestines, and their subsequent pustulation and ulceration should be considered as a kind of eruption, bearing the same relation to the fever that the variolous eruption does to the fever which ushers it in. These points have been somewhat fully discussed in the first and third numbers of the Baltimore Medical and Surgical Journal, in which I attempted to furnish an exposition of the general pathological characters and treatment of follicular enteritis, and to which I must now refer for further details, my present object being merely to offer a few remarks explanatory of the character of the intestinal fever, as it has presented itself during the present season.

The first cases of the disease were admitted into the infirmary early in July, from which time up to the present period, upwards of eighty cases, including some of unmasked intermittent, have been treated. A large proportion of them have been received from the Washington Rail-road, the Point of Rocks, and Harper's Ferry, the subjects being, for the most part, labourers on the Chesapeake and Ohio canal, and the different sections of the rail-roads. They have been, with a few exceptions, Irishmen, some of whom have only been a short time in the country, but all much exposed, and irregular in their modes of life. A few of the individuals have been Germans; and, besides those coming from the sources mentioned, some have been received from Federal Hill, Fell's Point, and other parts of the city and adjacent country. Those from Fell's Point have been mostly seamen, who, with a few exceptions, had been attacked with the disease after their arrival in Baltimore. It should be remarked, however, that while cases of fever have been thus numerous in the infirmary, owing to the extreme dryness of the greater part of the summer, the city has been unusually healthy.

In its mode of attack, the disease has presented nothing unusual. It has frequently been ushered in by a slight chill, sometimes rigors, followed by pain of the head, loins, and extremities, a hot dry skin, flushing of the face and eyes, intense thirst, and great restlessness. Few opportunities have presented, however, to enable me to judge of the symptoms of the forming stage, as most of those who have been admitted had been labouring under the disease for several days, and several of them for more than two weeks, before their arrival at the infirmary. Disturbance at the stomach, further than a mere loss of appetite, and a sense of oppression, has not been observed in many cases, nor have there been bilious vomitings, either at the onset or in the progress of the disease, except in a few cases, and those for the most part of the intermittent form. In some cases which were seen in the early stage, the remissions were distinct, and the subsequent exacerbations preceded by a slight chill. More frequently, however, there was no chill after the first paroxysm, and the exacerbations, though still well marked, were not followed by so complete a remission as at first.

But, as previously stated, few opportunities have occurred of seeing the disease in this form, most of the patients having been labouring under the fever for several days, and frequently submitted to very active treatment, before their admission. They have generally come in with the muscular system much prostrated, the tongue of a fiery redness upon its borders, contracted and pointed, and incrusted with a thick, dirty, dark coloured, or even a brown fur over the whole of the base, and along the middle, and in a great number of cases it was as dry and rough as weather-beaten leather. A dirty sordes have in like manner covered the teeth in the above instances. In some instances the whole epithelium of the tongue peeled off, leaving it smooth, dry, and intensely red. With these conditions, there has generally been great tenderness upon pressure observed in different parts of the abdomen, and particularly in the right iliac, and the hypogastric regions. In many cases the tenderness has been more diffused, and proved a source of much uneasiness, while in some it has been so obscure as to be scarcely perceptible. Some of the cases have been attended with diarrhœa; but this symptom has, in most instances in which it has been observed, only made its appearance at an advanced period of the disease. Dysenteric symptoms have likewise existed in several instances, and when such cases have been harshly treated at the commencement, this complication has been found to be exceedingly formidable, and difficult to control.

Manifest exacerbations have continued to recur in most of the cases, even when protracted, attended with pungent heat, and a general dryness of the surface; extreme dryness of the tongue, even when it was

before moist; considerable increase of thirst and restlessness, and evidences more or less strong, of cerebral and meningeal irritation.

Delirium, or other evidences of cerebral determination, have not been frequent in the early stage of the disease, and though the former has not been a very frequent condition in the later stages, in almost all the cases which assumed a protracted character, the irritation, after limiting for some time, its principal ravages to the intestinal mucous membrane, has gradually extended to the nervous centres, giving rise to evidences of disturbed intellect, and the whole train of symptoms which characterize arachnoid inflammation. This secondary complication has generally stolen on insidiously, at first merely revealing itself during the exacerbations; but in a few instances, it has burst forth suddenly, and with extreme violence, characterized by furious delirium, overwhelming prostration, frequent small pulse, muscular tremors, subsultus tendinum, injection of the eyes, and either contraction or dilatation of the pupils. At this juncture, the tongue has always been brown and extremely dry and scabrous. In some cases, the implication of the nervous system has been characterized by a kind of incoherence of intellect, or vacant stupidity, seldom so profound, however, except in the most advanced stages of the disease, that the patient could not be easily roused. Tympanites has been observed in a few cases.

A great number of patients who had been under treatment before their admittance, came in in a state of salivation, but with two or three exceptions, the mercurial disease, instead of arresting the fever, aggravated all its symptoms. It increased the tenderness of the abdomen, the dryness of the tongue, the sordes on the teeth, the general prostration of muscular energy—hastened the development of the nervous stage, and rendered the cases more formidable, and in every respect more difficult to manage. Many who were not salivated, had been so actively treated by emetics and drastic cathartics, especially calomel and jalap, that nearly the same train of mischievous consequences had to be encountered after their admission. Some of those who had been salivated, had deep ragged ulcers involving their lips, tongue, and cheeks, from which they experienced much suffering, and upon one individual who was thus affected, the mercury had so far exercised its pernicious influence, as to give rise to a complete state of anæmia.

The duration of the disease has presented nothing fixed or regular. Some have convalesced in a few days and left the house, while in other cases, the disease has continued with but trifling variations, for two, three, or four weeks, or even longer, manifesting a strong tendency to relapse under the influence of the slightest imprudence in diet.

In those who have died, the mucous gland and follicles of the ilium have been found in every case, one only excepted, in an intense state of inflammation, and extensively ulcerated. These conditions have been generally found in the lower part of this intestine, near its termination in the cœcum, and in many cases this latter gut, as well as the lower part of the jejunum, have been found similarly affected. The elliptic patches formed by Peyer's glands, have been the parts chiefly involved, and in every instance, except the single one already alluded to, they have been found violently inflamed, much enlarged, and generally extensively ulcerated. These ulcers, in some of the cases, have been so numerous, large, and closely clustered together, as to occupy nearly the whole internal surface of the intestine, and destroy all its tunics, except the peritoneal, by which alone, the contents of the organ were prevented from being extravasated into the cavity of the abdomen. The glands of Brunner have been found similarly affected; and in most of the cases where ulceration was extensive, the mesenteric glands were much enlarged and inflamed. Numerous patches of inflammation also existed upon different portions of the mucous membrane, and particularly along the tips of its different folds. The lining membrane of the stomach, though more or less inflamed in several cases, has presented far fewer traces of disease, than that of the small intestines. In one case only did peritonitis exist, and in that it was most intense. It was consecutive of previous inflammation of the mucous surface, and besides other lesions of this structure, a large ulcer was found occupying nearly the whole extent of the pyloric orifice of the stomach. In some of the cases, the liver and spleen have been found congested and very much softened; but these are common conditions in protracted acute diseases. In the dysenteric cases, besides the ulceration of the ilium, the mucous membrane of the colon and rectum, throughout nearly the whole of its extent, has been found extensively disorganized, by large irregular ulcers, and nearly the whole surface thickly coated over with a tenacious albuminous deposite, of a deep black colour, and so adherent as to be with difficulty detached.

The principal appearances observed in the brain, have been an effusion of clear or bloody serum from the arachnoid membrane, and more or less injection of different portions of that structure.

These are the general phenomena which have been presented by the fever of the present summer, which differs in no very essential particular from that of last year. The cases of the present season have been more numerous than they were during the same period of the last, but they have resembled each other during both, in all their leading features, and in one especially

—their formidable character, and protracted duration.

From the preceding remarks, it may be inferred, that whatever the primary impressions produced by the remote and existing causes of the disease may have been—whether they began upon the skin, in the nervous system generally, or the internal mambrane of the alimentary canal, the direct tendency of the disease was, to single out as it were a portion of this latter structure, upon which to exercise its principal violence.

The changes or modifications of the vital powers which usher in disease are too delicate to be analyzed or appreciated by any powers of observation that can be brought to bear upon them; but when a fever has been once developed, although it may be attended with a general disturbance of the animal economy, it always selects out one or more organs, which become more prominently affected than the others, and which form so many centres, from which the morbid sympathies are propagated to those parts, which sympathise most intimately with the organs first implicated, thus giving extension to the mischief, and constantly superadding new complications. Hence, in nearly all the cases which have been seen during the early stage of the disease, the symptoms arising from the affection of the mucous membrane of the alimentary canal, and especially of the ilium, were predominant. From this point, the irritation radiated to the other organs in the order of their susceptibilities, thus giving rise to the complications taking place in the more advanced stage of the disease, in consequence of the nervous centres, and particularly their arachnoid covering, becoming implicated. In all cases of fever assuming this form, the mucous membrane, and the nervous centres, therefore, constitute the points which the disease selects upon which to inflict its most formidable mischief; the first primarily—the second consecutively. Other organs, it is true, are more or less disturbed, as must necessarily be the case from the very nature of their relations, yet the degree of their suffering is always trifling, compared to that which is sustained by the parts principally affected. The secretions of the glandular apparatus are increased, diminished, suspended, or altered in quality; cutaneous exhalation is in a great degree interrupted, or it is performed in an unhealthy manner; the action of the heart and arteries is accelerated; the blood is distributed irregularly, and is altered in its properties, and the muscular energies are enfeebled. Still, throughout the entire progress of the disease, the mucous surface of the alimentary canal declares its sufferings by signs which are the most conspicuous and unequivocal; the evidences of its distress are predominant, and even after the cerebro spinal centres become affected, the indications of mucous irritation, in a great majority of instances, still continue. Cases nevertheless occur, in which the secondary affection of the nervous centres, may to a certain extent mask, or, as it were, suspend the force of the disease in the mucous membrane.

These facts must be constantly attended to in the application of remedies. They prove how improper some of the curative procedures are, which are frequently resorted to in the treatment of this form of fever. If the intestinal mucous membrane is in a high state of irritation and inflammation, from the onset of the disease, the almost indiscriminate employment of active emetics and drastic cathartics, which forms so prominent a part in the common modes of practice, cannot be founded on correct principles, and must often exasperate the disease. True, they frequently succeed by exciting a strong revulsive impression, by promoting copious secretions and exhalations, and giving rise to sedation of the remote organs. Yet, should excitement not be previously reduced to a point which will be compatible with the attainment of these ends, they must necessarily prove mischievous, as they do also, in all cases, when the inflamed surface is perpetually submitted to their irritating influence.

A plan much more consistent with sound principles of pathology, is that which consists in the general or local abstraction of blood, gentle aperients and enemata for removing all sources of irritation from the alimentary canal, external revulsives, cold to the surface of the body, where there is excessive determination of blood, or warmth where it is defective. With these means, should be included cooling and refreshing drinks, a mucilaginous diet, and an absolute avoidance of every source of irritation. When local depletion is demanded, it should be practised by leeches or cups, applied as near as possible to the organs most affected, and the revulsive remedies should be applied over the abdomen, to the head or the extremities, according to the nature of the case. The application of cold should be either general or partial, according to the degree of the excitement, and the extent of its diffusion. When the heat is intense and equally diffused, the cold affusions, if proper depletion has preceded, should be preferred. But where it is more moderate, and unequally distributed, ablutions or sponging will be the most eligible method of employing cold. When the system has been reduced to the revulsive point, an impression should be maintained somewhere upon the surface of the body, to counteract the tendency of the fluids towards the suffering organs. And where there are remissions and exacerbations, as the latter are always brought out by the gradual accumulation of irritation, and consequently, of the circulating fluids in the

organs most affected, such an event may be often prevented, or its effects mitigated, by inviting the circulation to the surface, in anticipation of the exacerbation, by means of strong revellants, as cups, blisters, sinapisms, &c. By adopting these principles, I have often seen a few cups to the abdomen or back of the neck, or a blister to the same parts, or to the inner surface of one thigh, either completely avert the exacerbation, or render it comparatively mild. Nor are these means useless after the exacerbation has taken place. By determining actively to a new point, they break up the internal irritations and congestions, upon which the paroxysm depends, and bring it to a speedy termination. A few cups applied to the epigastrium, under such circumstances, or what is still better, a number of leeches proportioned to the condition of the patient, often quiet all the sufferings of the individual, excite a free and equable perspiration, render the tongue moist and expanded, and induce a state of comfort and tranquillity, where all before was suffering and despondency.

As my object is merely to speak of general principles, and to adduce a few facts corroborative of them, I must refer for further details, in illustration of the principles upon which my practice in such cases is predicated, and the manner in which it is carried out, to the papers in my first and third numbers of the Baltimore Medical and Surgical Journal.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXVII.

Influence of Climate, Season, Abundance of Aliment, Famine, Prosperity, Misery, Liberty, and Slavery, upon Fecundity and Population—Comparative Influence of the Sexes in Reproduction.

The seasons, which are only transient climates, have great influence on fecundity. It is true, however, that man can exercise his genital function at all times, in all latitudes, temperatures, and countries. Nevertheless, the physical influences of the atmosphere, of aliments, and modes of life, render certain seasons more fertile than others. Hippocrates was of opinion, that spring was the season most favourable to conception. Pliny termed it the genital season, *geniale tempus*, when all nature possessed ardour and became pregnant of new creations. Many proofs of this conclusion have been adduced in the preceding lectures. At this season all animals and vegetables reproduce, animated nature is exhilarated, the purity of the air, the freshness of aliments, the infancy of all nature, which renews pleasure, the odour of flowers, the melodious singing of birds, the voluptuous sensations felt in every organ—all proclaim that this is the season of reproduction. Animals approach each other, the germination of seeds commences, shrubs and trees put forth their blossoms, and there is a universal effort to reproduce in all bodies endowed with life. In accordance with this law, we have multiplied experience to prove, that a much greater number of infants are born in the months of December, January, February, and March, than at any other time of the year, which shews that sexual intercourse is most prolific in the months of March, April, May, or in spring. Messonoe has observed that the summer months were most favourable to impregnation, but that fewer births occurred in June, November, and December; that is to say, that the autumnal months are least favourable to conception. M. Villermé lately read a statistical report before the Academy of Sciences in Paris, in which he gave

an account of 12,000 births, of which 1,093 took place in January, 1,136 in February, 1,117 in March, 1,057 in April, 1,000 in November, 981 in December, 981 in September, 964 in October, 965 in May, 927 in August, 896 in June, and 884 in July. This report referred to France only; but there is a vast difference between the periods of the greatest fecundity in different climates. In Sweden, the month of September is most abundant in births, which refers to the preceding December for the time of conceptions. In northern climates, the winter is the season in which the inhabitants associate most at festivities; and hence there is a greater union of the sexes. In summer there is more amusements in the open air. Raymond states, that the women of Marseilles conceive more in autumn and in winter than in summer; the most prolific month is October, the least so March.—(Topograph. de Marseille dans les Mem. Acad. de la Soc. Med. t. ii, p. 128).

In general, however, the heat of the summer is less favourable to conception than the more temperate seasons, and the equinoxes more than the solstices. The warmth of summer causes perspiration and exhaustion, and though amorous impulse is strong, its enjoyment is followed by debility, and its frequent use injurious.

The variable state of the weather in autumn often induces cholera, diarrhœa, dysentery, typhus, &c., and this season is generally considered the least favourable to reproduction. Winter, for the reasons already stated, is held to be more congenial to fecundation than the preceding season. The end of winter or commencement of spring is, perhaps, the period in which most conceptions take place. Some writers have stated that a southerly or warm and humid constitution of the year is most favourable to the births of female infants, whilst cold and dry years produce most males.—(Hippocrates De Aere. Loc. et Aq. et Raymond Sterilib. op. cit.)

The agriculturists of France have observed that season determines the sex of animals. When the weather is dry and cold, and the wind northerly, mares, ewes, and heifers, produce fewer females than when the season is in the opposite condition.—(Velpeau).

It is a popular, but most probably an erroneous observation, that women bring forth more male infants in one year than in another. There is among midwives an adage, "This is the year for sons or daughters."

As the day is a portion of the year, it may be inquired, if there be any period of it more favourable to conception than another—a *hora genitalis*, as supposed by the ancients. It has been remarked, that there are more parturitions at night than by day; because, during this time, most impregnations undoubtedly occur. According to M. Virey, the morning is the most proper time for generation; then the body is repaired by the repose of the night; it enjoys the plenitude of its power; waking is often accompanied by erection, the best sign of vigour; and it is in the matinal sleep that the nocturnal illusions of pleasure most commonly occur. The agitation and labours of the day, repasts, and various objects of distraction, studies, and business, render sexual unions less fertile than during the stillness of the night.

There is no greater source of reproduction than abundance of aliment. In all countries the number of consumers increases or diminishes in proportion to aliments. In years of opulence and fertility, all increase; men, beasts, and insects, all multiply and fill the earth; but in the sad periods of indigence and misery, and in seasons of calamity, we only observe few individuals born, and these are generally degenerate. So, also, the years of famine are certainly accompanied by a great deficiency in reproduction, as the tables of births very amply attest. The want of subsistence and of agriculture in savage nations explains the paucity of population; and hence the justness of the ancient adage, "Sine Cerere et Baccho friget Venus."

It is very true that Ceres and Bacchus, the mythological deities of aliment and drink, might be fairly considered to influence the rights of Venus. In proof of this position, it is further urged that the most powerful means of mortifying the flesh, according to moralists, is fasting. It is also known that sexual intercourse causes hunger, and needs restorative means, whilst an abundant restoration excites the want of generation.

Experience has also shewn that certain foods excite the genital organs of particular individuals. The employment of vinous and spirituous liquors produce the same effect on most persons, but their abuse, as also that of warm drinks, such as tea and coffee, are injurious to generation. It it held that inveterate drunkards, or those who engender in drunkenness, produce more daughters than sons, as they are less energetic, their desires less ardent, and the seminal fluid less prolific than in a natural condition. Drunkenness diminishes the powers of the nervous and muscular systems, and often renders the generative act impossible or imperfect.

M. Marc observes, that neither sex, when inebriated, perform the genital act with sufficient power for fecundation. Plutarch laid it down as an axiom, "that no man keep company with his wife for issue sake, but when he is sober, as not having before drunk any wine, or at least such a quantity as to distemper him; for they usually prove wine-bibbers and drunkards, whose parents beget them when they were drunk; wherefore, Diogenes said to a stripling, somewhat crack-brained and half-witted, 'Surely, young man, thy father begot thee when he was drunk.'"—(Morals, Translation, London, 1718). Burton remarks, in his Anatomy of Melancholy, "if a drunken man gets a child, it will never, likely, have a good brain." Mr George Coombe, in his admirable work, The Constitution of Man considered in relation to External Objects, relates the cases of a young woman who had drunk and danced for hours with a soldier. They left the cottage, and after an hour, were found together in a glen, in a state of utter insensibility, and the consequence of this interview was the birth of an idiot. Many other physiologists might be quoted, who describe the evils entailed on the offspring when begotten while one or both parents were intoxicated; but these conclusions do not controvert the fact, that a moderate use of wine or other stimulating liquor excites amorous impulse, as well as the mind and body of most persons, and is considered favourable to reproduction. The use of such fluids generally precedes the function in question, as most adults can attest. But this custom is contrary to the dictates of nature, although it prevails, more or less, in all classes of society. It is generally considered that the population in northern nations has been very much diminished and deteriorated by the abuse of spirituous liquors.

The most unfavourable state for propagation is excessive exertion of the mind or body. It has been long observed, that men of great genius have fewest children. Experience has demonstrated, that the pleasure of love extinguishes the fire of the imagination, abates genius and courage, as innumerable proofs have repeatedly attested. Lastly, M. Villermé is of opinion, that balls, amusements, and public rejoicings at the time of marriage, or any other period, as also privations, fasting, prosperity, civilization, liberty, misery, and calamity have different effects upon reproduction; and he arrives at the conclusion, that more infants are born under a clear sun, in countries where the arts, industry, and the sciences flourish, and where the atmosphere is pure and the country fertile, than under opposite conditions; and that scarcity and famine produce great changes in the population.

Another question, relative to procreation, which engaged the attention of physiologists and naturalists from the earliest periods, is the comparative enjoyment of the sexes. The majority of authors have awarded it to females.

Some have held that pleasure and fecundity are enjoyed in an equal degree by the sexes (Bousquet) and others, (Virey, Blundell, &c.,) by females. These, it is said, are most tranquil and less agitated than the other sex, as they contribute least to formation of the embryo ; while the latter are most voluptuous, ardent, excited, and depressed. The spermatic and ovarian fluids which effect reproduction, are supplied in very different proportions; that of the male is the most important, as imparting life ; and hence there is more languor on its effusion; while the vaginal and uterine ejaculation which is alone perceptible in the act of generation, scarcely diminishes sensibility, nor is it followed by such great prostration as the former. Hence it is a physiological axiom, that the function of procreation is less debilitating and more delicious with one sex than with the other.

An ancient writer has observed, " Sicut unus gallus multis gallinis sufficit, sic etiam unus vir pluribus mulieribus satisfacere possit. Sed profecto quotidiana reclamat experientia, (nisi forte Herculem vel Proculem aliquem resuscitemus) unam mulierem pluribus viris sufficere potius, quam, contra, adeo ut inventæ sint, quæ trigenta duos ordinis militaris viros continuatis vicibus sustinuerint; et satis ab antiquis decantata est effrænata libido Messalinæ :—

' Adhuc ardens rigidæ tentigine vulvæ :
Et lassata viris, nondum satiata recessit.'

Such was the conclusion of Plazzoni, and that which is generally received*.

If the reason be inquired why one sex is more insatiable than the other, the answer is, because the one dispenses less than the other. It is now universally admitted by physiologists, that there is no supply of a feminine seminal fluid during reproduction, but a germ in the ovary is impregnated, though there may be a more or less abundant secretion of fluid from the membrane and subjacent glands of the vagina and uterus; but the sensibility remains vivid after the effusion of this fluid, while the emission of the male is followed by an immediate abatement of amorous impulse. In fine, the conformation of the sexes, enables the female always to receive, and never, according to the expression of Solomon, to be satiated, (" os vulvæ nunquam dicit, sufficit,") and therefore sexual enjoyment is considered more delicious and protracted in one sex than the other. If we consider that the other sex have the nervous system much more sensitive than ours, the skin more fine and delicate, that their feelings are more acute, their mammæ the seat of vivid sensibility from uterine sympathy, we must agree with Delignac, " that their enjoyment is more intense and extended through the whole economy, than in man, and that coition or impregnation generally excites in them a universal tremor in all parts of the body." Amorous excesses do not determine the question under consideration. Astruc and many other respectable authors relate examples of nymphomania. At one time I was inclined to doubt the existence of such cases in this country, but my valued and much respected friend, Mr. Mason, Surgeon, of Newington Butts, related the history of a case to me, which fully equalled any one of which I had read. It occurred after parturition in an unmarried woman. Such cases, however extraordinary, do not surpass those of satyriasis in men. In endeavouring to resolve the question, it is necessary to describe the genital power in men. This will vary according to age, temperament, habit, mode of life, situation and climate. It is in general much more energetic from the age of puberty to the age of

* F. Plazzonus De Partibus Generationis, Lugdini, 1664.

thirty-five or forty-five than at later periods of life; but it is sometimes very powerful after this last age. Thus, even in our own time we see men of 70, 80, and even 90, entering into matrimonial engagements. Cabrol in his Alphab. Anatom. Observ. 17, reports men, who, (while under the influence of cantharides,) performed the reproductive function forty times in one night, and forty-eight times in two nights; but in my opinion, no just conclusion can be drawn from such cases. It is possible that such instances may have occurred, but it is extremely improbable that the secretion of semen, which is comparatively slow, could become so rapid and superabundant. Other analogous observations relating to the act of generation are mentioned by Schurig, (Spermatolog) and Sinibaldus, (Geneanthropia.) It is recorded that Proculus, a Roman general, deflowered ten prisoners of war in one night. In one of his letters he states, "Proculus Metiano affini S. D. centum ex Sarmatia virgines cepi. Ex his una nocte decem iniui; omnes tamen, quod in me erat, mulieres intra dies quindecim reddi." (Flavius Vopiscus.) This incredible assertion was surpassed at a recent trial at Westminster, in June, 1836, in which one of the parties declared that he had deflowered twenty virgin nuns in one night. He also stated that he had fought ninety duels, and shot each of his antagonists in the left eye!! The jury considered these and many similar statements incredible, and gave a verdict against him.

According to Venette, complete efforts do not exceed six or seven acts; and men who exceed this number, "quibus rigidus adhuc in inguine nervus," ejaculate no more, or sometimes have emissions of blood. Tissot relates examples of the last disease in his Traite Sur l'Onanisme. When we remember the limited capacity of the seminal receptacles, we must at once perceive the utter impossibility of numerous coitions, even allowing the secretion of semen to be increased by them. But as the genital power will vary according to age, habit, temperament, occupation, climate, and season, it must differ in different individuals, and cannot be properly estimated, or a positive rule laid down respecting it.

It is not to be supposed that when pleasure is most vivid conception takes place more readily, as the contrary is often the fact, "non eo quò salacior mulier, eò fecundior;" for when the uterus is in a state of extreme and too frequent excitement, it often loses its retentive power. We see this exemplified in the lower orders of mammiferous animals, over which it is often necessary to pour cold water after copulation, to excite the contraction of the uterus. The same reason explains the infertility of prostitutes and courtesans, who rarely conceive, unless after intercourse with persons whom they prefer. In fact, a uterus incessantly open and stimulated, has a tendency to evacuate itself, and repeated venereal enjoyments induce excessive menstruation, mucous discharges, and abortions. In such cases conception rarely occurs, unless the mind be intently fixed upon one person, and there is one undivided love. It has been observed that prostitutes who were infertile for years, have become mothers after transportation to Botany Bay, when restrained by marriage. In the same manner, when men abuse the end of marriage, they have no children, because they secrete semen which is not sufficiently elaborated, and which is too feeble; and hence polygamy is much less favourable to population than monogamy. Chastity, on the contrary, augments the vigour of the organs and amorous ardour, and is the surest means of fecundity. Hence, those newly married persons who have observed a strict chastity before their union, procreate immediately, and their offspring is vigorous; while dissipated or aged persons seldom have children, and if they have, these seldom arrive at the adult age. For this reason, animals which copulate at certain times only, engender by one act. But a rigid chastity enfeebles the passion of love, and may be the cause of infertility.

Abstinence from venereal enjoyment, for a few days or weeks, favours fecundity, and invigorates both mind and body. The ancient classic and philosophic authors held that all great intellectual generation required corporeal continence. Minerva, the goddess of genius, and all the muses, were virgins. Horace lauded the favourite of Apollo for having abstained from women and wine, "Abstinuit Venere et vino, sudavit et alsit," and Virgil wrote still more forcibly. Bacon observed that no one of great genius, of antiquity, had been addicted to women; and he stated that among the moderns, the illustrious Newton had never enjoyed sexual intercourse. This fact confirms the remark made by Aretæus, and since verified by all physiologists, that continence, or the reabsorption of the semen into the animal economy, impressed the whole organism with an extreme tension and vigour, excited the brain, and exalted the faculty of thought. From these effects, courage, magnanimity, all the virtues, and corporeal vigour resulted.

The abuse of enjoyment, on the contrary, enervates the body, destroys the memory, extinguishes the imagination, degrades the soul, and renders it stupid. Thus, idiots who abuse this function are excessively lascivious; and eunuchs are remarkably deficient in genius—they want the organs which are destined to secrete the semen, and this plunges the mind as well as the body into a languor and debility almost infantine. It has also been observed that mental exaltation and madness do not manifest themselves before the age of puberty, nor in old age, but in the adult age especially, by the retention of the sperm or ovarian fluid; and hence, castration and pregnancy have radically cured maniacs. Nothing is more certain than this, that animals and plants shorten their existence by multiplied sexual enjoyments. It was to secure vigour of mind and body that the founders of certain religions prescribed chastity and celibacy to their ministers. This rule is in a slight degree accordant with physiology; for it is well known that our moral and physical powers are diminished by coition, because we impart a portion of our physical and intellectual endowments to our offspring, and diminish them in ourselves.

A most important train of consequences to society and government follow from this inquiry, which is, that the state of morals has a prodigious influence on the population of empires. It is proved beyond doubt that the population increases much more in the country, and in villages, than in large cities. The citizens pass their youth in dissipation, and marry late for the sake of interest. But in the country, illegitimate unions cannot occur without exposure, as every one knows the conduct of his neighbour; he marries early in life, he is a stranger to luxury and effeminancy, and his offspring are healthful, vigorous, and numerous.

MODUS OPERANDI OF MEDICINES. BY JAMES JOHNSON, M.D.

(*From a Discussion in the Westminster Medical Society*).

THE experiments and observations of Dr. Addison have been now seven years before the public, and have been approved and appropriated by some of our best toxicologists. I fully agree with Dr. A. that all violent poisons act through the medium of the nervous system alone, many of them destroying life before there is a possibility of their entering the circulation. This has been long acknowledged. I have seen the ear of a rabbit exposed to the bite of a Cobra de Capella, with a pair of scissors kept across the ear, ready to cut it off the moment the bite was inflicted, yet the animal died quickly in convulsions. But this rapid modus operandi of poisons may not apply, perhaps, to the action of medicines which operate slowly, and which enter into the circulation.

It is now twenty years since a distinguished physician, still alive, taught and published the identical doctrine of this sympathetic or nervous agency of medicines, founded on experiments made on animals twenty years previously to that period. The following

extracts are made from the second volume of Dr. Chapman's Treatise on Therapeutics.

"The theory I shall propose of the operation of medicines alleges, that they all act by exciting a local impression, which is extended through the medium of sympathy."—Vol. i, page 60.

Again—"All changes in the condition of the fluids are wrought by impressions made through the medium of the solids. Not the slightest proof exists of their undergoing any mutations from the introduction of foreign matters—much less that such is the cause of disease, or the mode in which medicines operate."—Page 61.

3rdly—"The process of assimilation, whether performed by the chylopoietic viscera, or by any part of the absorbent apparatus, completely decomposes all substances, however discrepant in their properties, and reduces them to a homogeneous fluid fitted for the purpose of nutrition."—Page 63.

Lastly—"Conformably to the theory I have adopted, whenever a medicinal substance is applied to a susccptible portion of the body, externally or internally, an action is excited, which is extended more or less, according to the diffusibility of the properties of the substance or the degree of sympathetic connection which the part may maintain with the body generally. Thus, a set of actions is raised, every one of which is precisely similar, provided they are confined to the same system. If the chain runs into other systems, it loses its homogeneous character, and the actions are modified by the peculiar organization of the parts in which they take place."—Page 70.

The experiments from which these conclusions are drawn, were conducted by Drs. Chapman and Lee, some forty years ago, on dogs and cats, in the Pennsylvania Hospital.

These deductions appear to rest on two assumptions—neither of which is, I suspect, tenable. First, that no medicinal substance can be detected in the blood--and secondly, that the chyle is the same, or nearly so, whatever may be the nature of the food or physic taken into the stomach.

Dr. Christison, who is a disciple of Dr. Addison and Mr. Morgan, and warmly espouses their views, acknowledges that "poisons, after being swallowed, have been detected in the blood, the secretions, and the excretions." Grognier found muriate of ammonia in the serum of horses poisoned by it. TIEDEMANN discovered verdigris and superacetate of lead in the blood of the veins, in similar circumstances. LEBKUCHNER found camphor in the blood of the vena cava. MEYER detected hydrocyanate of potass, not only in the blood, but in the serous secretions of animals poisoned with that substance. JOURDAN and others discovered mercury in the urine of persons who were taking it medicinally. CANTU detected iodine in the blood, sweat, urine, saliva, and milk of patients who were using it in medicinal doses. KUMER found hydrocyanic acid in the blood of animals poisoned by it. "The spirituous odour," says Dr. Christison, "of men and animals under the influence of alcohol, is a proof of the presence of that poison throughout the blood."

These are the facts adduced and acknowledged by Dr. Christison, who, nevertheless, supports the doctrine that poisons and remedies act solely through the medium of the nerves. But supposing that neither poisons nor medicines could be detected in the blood, after being taken into the stomach, would that prove that neither they nor their compounds circulated with the vital fluid? Let us hear an experiment performed by Drs. Christison and Coindet. I use Dr. C.'s words. "We injected into the femoral vein of a dog eight grains and a half of oxalic acid, which caused death in half a minute. Here it was impossible that the poison could have passed off by any of the excretions; yet we could not detect even that large proportion in the blood of the iliac vein and vena cava collected immediately after death."—*Toxicology*, p. 14.

We cannot, I think, draw any line of demarcation between food and physic, when taken into the circulation, as they are proved to do, whether changed or unchanged. Nor do I think that we have any experiments to prove that they do not modify the state of the circulating fluids, and influence the secerning vessels and their products, as well as the nerves of the organs through which they permeate.

We must remember that the blood contains the pabulum of all the secretions; and as the minute secreting as well as absorbent vessels are endowed with the power of selection, is it not reasonable to suppose that they will be influenced by medicinal substances or their elements, when presented to their mouths? We rub mercurial ointment on the thighs till ptyalism is produced, and the whole of the glandular system throughout the body is brought into a state of great activity, with considerable changes in the various secretions and excretions. Are we to infer that all this is produced by sympathy between the nerves of the thigh (where the first impression is made), and the nerves of all the glands in the body?

Iodine is rubbed on the surface, or taken slowly into the stomach for a considerable time—and the MAMMÆ waste. Is this from sympathy of the cutaneous or gastric nerves with those of the breasts?

Dr. A. T. Thomson detected iodine in the urine, saliva, and perspiration of patients taking that medicine in medicinal doses, and showed some beautiful experiments in the

Westminster Medical Society. The medicine is easily detected by starch and nitro-muriatic gas or acid, applied to any fluid containing even the minutest quantity of iodine. The fluid turns blue.

A very talented young chemist (Mr. Bird), stated that he had detected iodine in the blood by means of the same tests.

Drs. Addison and Chapman seem to think it unphilosophical to consider the modus operandi of medicines a compound operation, when that modus may be accounted for by a single process. Why should the blood and the blood-vessels, say they, have any thing to do in the cure of syphilis by mercury, when the whole process can be explained by the nerves? Can mercurial ointment rubbed on the legs or thighs cure a chancre on the penis, simply by sympathy between the nerves of the two parts? It is curious that this sympathy very seldom produces any curative effect till the gums become sore, and the breath exhibits a strong mercurial fetor.

The poison of syphilis ought to be a stumbling-block to the simple and solely nervous agency of poisons in all cases. Does the application of the syphilitic virus to the glans penis produce, not only the chancre, but the subsequent affections of the bones and other parts, solely by sympathy between the nerves of the glans penis and all these different structures? Is it not more probable that the poison passes into the system by means of absorption, tainting the whole mass of blood, and diseasing various tissues for which the virus had an affinity or predilection?

The liver is torpid, and the stools are like clay. Mercury is taken for five or six days, till the mouth is touched, when the bile flows freely, and the stools become yellow. Yet all this is supposed to be from sympathy between the gastric and hepatic nerves alone.

Drs. Addison and Chapman will, no doubt, explain these phenomena by supposing that, when mercury is taken, it is the nerves of the liver or other glands that set the secretions in activity. Allowing this to be the case, as I do, it only gives the nerves the initiatory in the process; the blood and the secerning vessels being essentially involved and employed in that same process. I do not deny the agency of the nerves in every curative as well as destructive operation; but I deny their exclusive agency. The nerves cannot secrete without the vessels, nor can the vessels without the nerves. It is their joint agency for which I contend—it is their insulated or independent actions in the modus operandi of medicines that I repudiate.

Where do we see any great process in the animal economy, whether conservative or destructive, carried out by the nervous system, exclusive of the vascular—or by the vascular independent of the nervous? Is digestion, assimilation, sanguification, secretion, or absorption, performed by one of these systems alone, or in any case? And is the modus operandi of medicines (which are only auxiliaries or correctives of some of these processes) to be made an exception and an anomaly in the operations of the living machine?

Is the chemistry of the animal fluids to be placed entirely to the account of the nervous system? We have turbid urine, with deposition of uric acid. A few drachms of soda change the state of renal secretion, and render it clear. Is this from sympathy, and from sympathy alone, of the nerves of the stomach with those of the kidney?

A man has epilepsy, and he takes nitrate of silver for several months. The disease may or may not be cured; but the skin becomes permanently blue. Is the modus operandi of argentum nitratrum to be solely attributed to sympathy between the nerves of the stomach and the skin?

I am ready to grant, what, indeed, no physiologist or pathologist will deny, that the primary impressions of all kinds of food, and all kinds of physic, are made on the nervous system—and that violent poisons will destroy life through this system alone, as a blow on the stomach will kill instantaneously, before the vascular system can be called into play. But this I maintain, that, when medicines are slowly introduced into the body, they excite a series of actions in the nervous and vascular apparatus, conjointly and not separately,—and that it is through this conjoint agency (whichever may take precedency) that all remedial or deleterious effects are produced.

There is, after all, but little real difference between Dr. Addison and Dr. Johnson. The chief difference is this: The former thinks the entrance of medicines, as well as poisons, into the circulation unnecessary:—The latter thinks that medicines, and poisons in medicinal doses, do enter the circulation before their full remedial agency can be effected—always excepting, of course, those medicines which act, and are intended to act, locally, as purgatives, &c.

Proposed Modus Operandi of Medicines.—I submit that, in cases where medicines are exhibited in medicinal doses, viz. for the remedy of disease, and not for the destruction of life, the modus agendi consists of three distinct and consecutive processes, as far as the evidence of our senses is concerned.

First. The physiological action of the medicine itself on the nervous system of the part or parts to which it is applied.

Secondly. The physiological action or reaction of the nerves on the vascular, glandular, or fibrous tissues of the same part or parts.

Thirdly. The physiological action induced in the vascular, glandular, and fibrous part or parts, by the two preceding processes—in other words, the remedial effects or products of the medicine employed.

Now, of the modus operandi of the medi-

cine on the nerves—and of the nerves on the vessels, glands, and muscles we are entirely ignorant, and we only take them for granted; and of the third process—the physiological action of vessels, glands, &c. we only become cognizant, by the effects or products of this action. To illustrate this reasoning let us take an example.

Calomel is introduced, in successive doses, into the stomach. We know not its physiological mode of action on the nerves of that organ, or of any other organ to which it may be carried. Neither do we know the modus operandi of the ganglionic nerves on the vessels, glands, or other tissues of the parts which they supply. But the third process takes place—the physiological action of these last structures, and then we have the visible, tangible, demonstrable results—ptyalism—increased action of all the glands—alteration in the various secretions and excretions.

In these three consecutive processes, then, this *tria juncta in uno*—we have the modus operandi of medicines. The medicinal agency is the first, the nervous agency is the second, the vascular agency is the third. Any one of the agents being absent (I mean in therapeutics) the others cannot act. In the exhibition of medicines all the three processes must be called into play, and the result is, the modus operandi in a practical point of view*.

The only question that remains, and in this I differ from the exclusive sympathetic doctrine, is this:—Is the nervous system of the various parts remote from the seat of primary impression—(the stomach, for instance, when mercury is exhibited)—excited into action by purely nervous sympathy with that primary part, or by the presence of the mercury, however decomposed or modified, carried to these parts by the circulation? This is the problem to be solved, and my own opinion is, that the probability is in favour of the latter supposition—namely, that the mercury (and I only take this as a familiar example) permeates throughout the whole system, and acts on each individual organ and part (through the nerves and vessels) in the same way as it did on the part to which it was first applied.

Lastly. If the physiological action of medicines were propagated from the stomach to other organs and parts, by nervous sympathy alone, that action ought to be first and most strongly manifested in those organs and parts with which the stomach most readily sympathizes. But this is so far from being the case, that we can never predicate the direction which any particular medicine may take, till it is determined by experience. Who could have prognosticated that antimony would vomit, colocynth purge, mercury salivate, iodine emaciate, digitalis depress, and bark invigorate, by any investigation of the physical or chemical characters of these and an hundred other officinal substances? I contend, then, that the laws by which medicinal agents are directed to particular organs and parts of the living body are, as yet, unknown—and that the modus operandi, by nervous sympathy alone, does not satisfactorily account for the phenomena which we observe in the practice of physic.

P. S. We regret that we are unable to give Dr. Addison's able speech on this subject. It was not written, and it was delivered with the usual eloquence and rapidity of the talented Chairman of the Westminster Medical Society.—Eds.—*Medico-Chirurgical Review, July*, 1836.

* It is quite useless, in the present state of our knowledge, to attempt an explanation of the mode or manner in which nature operates, whether in respect to poisons or remedies. The effects of these agents are all that we can ascertain. The effects, then, of poisons, in large and in small doses, are different. Small doses of arsenic will cure diseases, and produce a train of phenomena totally different from those produced by large or poisonous doses. How, then, can we say that the modus operandi must be the same in both cases? Thirty grains of calomel will purge—and do nothing else, in a great majority of cases. The same given in grain doses, at intervals of eight hours, will salivate and affect the whole system. Is the modus operandi the same in both instances? Is not the mercury taken into the system, in the latter case, and does it not act through the medium of the blood through the whole machine? In the former case, does it not act on the intestinal canal without absorption?

MENTAL DISORDERS.

Moral Management of the Insane.

[The following striking account of a scene in the Bedlam of Paris is extracted from a paper read at the Academy of Sciences by the son of the celebrated Pinel, describing an act of his father's, which deserves everlasting honour, from the wisdom, courage, and humanity which it displays.]

Towards the end of 1792, Pinel, after having many times urged the government to allow him to unchain the maniacs of the Bicêtre, but in vain, went himself to the authorities, and with much earnestness and warmth advocated the removal of this monstrous abuse. Couthon, a member of the commune, gave way to M. Pinel's arguments, and agreed to meet him at the Bicêtre. Couthon then interrogated those who were chained, but the abuse he received, and the confused sounds of cries, vociferations, and clanking of chains in the filthy and damp cells, made him recoil from Pinel's proposition. "You may do what you will with

them," said he, "but I fear you will become their victim." Pinel instantly commenced his undertaking. There were about fifty whom he considered might without danger to the others be unchained, and he began by releasing twelve, with the sole precaution of having previously prepared the same number of strong waistcoats, with long sleeves, which could be tied behind the back, if necessary. The first man on whom the experiment was to be tried was an English captain, whose history no one knew, as he had been in chains forty years. He was thought to be one of the most furious among them; his keepers approached him with caution, as he had in a fit of fury killed one of them on the spot with a blow from his manacles. He was chained more rigorously than any of the others. Pinel entered his cell unattended, and calmly said to him, "Captain, I will order your chains to be taken off, and give you liberty to walk in the court, if you will promise me to behave well and injure no one." "Yes, I promise you," said the maniac; "but you are laughing at me, you are all too much afraid of me." "I have six men," answered Pinel, "ready to enforce my commands, if necessary. Believe me then on my word, I will give you your liberty if you will put on this waistcoat."

He submitted to this willingly, without a word: his chains were removed, and the keepers retired, leaving the door of his cell open. He raised himself many times from his seat, but fell again on it, for he had been in a sitting posture so long that he had lost the use of his legs; in a quarter of an hour he succeeded in maintaining his balance, and with tottering steps came to the door of his dark cell. His first look was at the sky, and he cried out enthusiastically, "How beautiful!" During the rest of the day he was constantly in motion, walking up and down the stair cases, and uttering short exclamations of delight. In the evening he returned of his own accord into his cell, where a better bed than he had been accustomed to had been prepared for him, and he slept tranquilly. During the two succeeding years which he spent in the Bicêtre, he had no return of his previous paroxysms, but even rendered himself useful by exercising a kind of authority over the insane patients, whom he ruled in his own fashion.

The next unfortunate being whom Pinel visited was a soldier of the French guards, whose only fault was drunkenness: when once he lost self-command by drink he became quarrelsome and violent, and the more dangerous from his great bodily strength. From his frequent excesses, he had been discharged from his corps, and he had speedily dissipated his scanty means. Disgrace and misery so depressed him that he became insane: in his paroxysms he believed himself a general, and fought those who would not acknowledge his rank. After a furious struggle of this sort, he was brought to the Bicêtre in a state of the greatest excitement. He had now been chained for ten years, and with greater care than the others, from his having frequently broken his chains with his hands only. Once when he broke loose, he defied all his keepers to enter his cell until they had each passed under his legs; and he compelled eight men to obey this strange command. Pinel, in his previous visits to him, regarded him as a man of original good nature, but under excitement, incessantly kept up by cruel treatment; and he had promised speedily to ameliorate his condition, which promise alone had made him more calm. Now he announced to him that he should be chained no longer, "and, to prove that he had confidence in him, and believed him to be a man capable of better things, he called upon him to assist in releasing others who had not reason like himself; and promised, if he conducted himself well, to take him into his own service." The change was sudden and complete. No sooner was he liberated than he became obliging and attentive, following with his eye every motion of Pinel, and executing his orders with as much address as promptness: he spoke kindly and reasonably to the other patients; and during the rest of his life was entirely devoted to his deliverer. And "I can never hear without emotion (says Pinel's son) the name of this man, who some years after this occurrence shared with me the games of my childhood, and to whom I shall feel always attached."

In the next cell were three Prussian soldiers, who had been in chains for many years, but on what account no one knew. They were in general calm and inoffensive, becoming animated only when conversing together in their own language, which was unintelligible to others. They were allowed the only consolation of which they appeared sensible—to live together. The preparations taken to release them alarmed them, as they imagined the keepers were come to inflict new severities; and they opposed them violently when removing their irons. When released they were not willing to leave their prison, and remained in their habitual posture. Either grief or loss of intellect had rendered them indifferent to liberty.

Near them was an old priest, who was possessed with the idea that he was Christ: his appearance indicated the vanity of his belief! he was grave and solemn; his smile soft and at the same time severe, repelling all familiarity; his hair was long, and hung on each side of his face, which was pale, intelligent, and resigned. On his being once taunted with a question that "if he was Christ he could break his chains," he solemnly replied, "Frustra tentaris Dominum tuum." His whole life was a romance of religious excitement. He undertook on foot pilgrimages to Cologne and Rome; and

made a voyage to America for the purpose of converting the Indians: his dominant idea became changed into actual mania, and on his return to France he announced himself as the Saviour. He was taken by the police before the archbishop of Paris, by whose orders he was confined in the Bicêtre as either impious or insane. His hands and feet were loaded with heavy chains, and during twelve years he bore with exemplary patience this martyrdom and constant sarcasms. Pinel did not attempt to reason with him, but ordered him to be unchained in silence, directing at the same time that every one should imitate the old man's reserve, and never speak to him. This order was rigorously observed, and produced on the patient a more decided effect than either chains or a dungeon: he became humiliated by this unusual isolation, and after hesitating for a long time, gradually introduced himself to the society of the other patients. From this time his notions became more just and sensible, and in less than a year he acknowledged the absurdity of his previous prepossession, and was dismissed from the Bicêtre.

In the course of a few days, Pinel released 53 maniacs from their chains: among them were men of all conditions and countries; workmen, merchants, soldiers, lawyers, &c. The result was beyond his hopes. Tranquillity and harmony succeeded to tumult and disorder: and the whole discipline was marked with a regularity and kindness which had the most favourable effect on the insane themselves, rendering even the most furious more tractable.—*Memoires de l'Academie de Médecine*, t. v. f. 1, 1835.

ON THE MEANS OF INCREASING THE NUMBER OF LEECHES IN FRANCE. BY M. GUIBOURT.

[A REPRESENTATION having been made to the French government on the subject of preserving and augmenting the number of leeches in France, the opinion of the Academy of Medicine was requested by the minister, and a commission was appointed to make a report on the subject. This report, drawn up by M. Guibourt, was read at the sitting of the Academy on the 22nd September last: and as it contains some very interesting details on matters of no slight importance to all who practise medicine, we shall extract a considerable portion of it. The subject becomes more interesting when we reflect that we, as well as the French, derive our supply of leeches from foreign countries.]

Twenty-five years ago more than enough leeches were produced in France to supply the whole demand, at the small price of 15 to 60 francs a thousand. But soon after this, the consumption became so much greater that they were obliged to be obtained from Belgium, Spain, Italy, Bohemia, and even Africa. At present few are procured in France, although the price is 150 to 250 francs a thousand. Brittany and Sologne alone furnish a few for commerce; in other places the quantity does not supply the local wants. Spain and Bohemia are also exhausted. Tuscany affords only an inferior sort, and the vast marshes of Hungary are beginning to be depopulated, so that they are now obtained at the establishment of Vertus near Paris, from the frontiers of Russia and Turkey. They are brought from these countries to Palota near Pest, where they are kept in reservoirs belonging to the same establishment, and sent on to Paris as required. At Palota they are packed up in bags, each of which contains from 50 to 70 lb. weight, and these bags are arranged side by side in hammocks, suspended in a light covered cart, like that used by upholsterers, which travels post to Paris in twelve or fourteen days. They never arrive there without delays, for in hot and stormy weather it is necessary to refresh them with water, sometimes twice, but at least once daily. For this purpose there are at Kell large troughs, in which smaller ones are placed, and both are filled with water. The sacks of leeches are emptied into the little troughs, from which the animals escape into the greater ones, and all those which remain at the bottom of the water are rejected as unable to bear the journey. On their arrival at Vertus establishment they are placed in large reservoirs of running water, of which the banks are planted with reeds. They remain there generally a month, but when the demand is great they have only five or six days' rest, and as they are exhausted with the journey, they are complained of as bad leeches. Young leeches, supposed to have been born on the establishment, are seldom seen, and they are at least eight years attaining their full size: this may not be the natural period of their growth, for the adult leeches grow thin instead of increasing in size in captivity. M. Durand, apothecary at Montereau, has, however, seen leeches propagate in reservoirs where he keeps them, and he has sent to the academy leeches of from one to two years old. These, however, are not one quarter the full size, and they would therefore take eight years to attain it. This would make them more expensive than if imported. In order to prevent the failure of the supply of leeches, M. Guibourt proposes that those which have been used in the Paris hospitals, (500,000 annually,) should be sent into marshy and uninhabited districts of France to multiply: pits should be dug in the numerous little islands in the rivers for their reception, so that when winter came, and these islands were overflown, the leeches would be dispersed, and when at full liberty

would become healthy, and increase in number; and in a few years there would be less necessity to seek them in foreign countries. An experiment was for some time made with the old leeches of the Hôtel Dieu, which were placed in a pond supplied by a stream, and in five or six months it was found that they could be reapplied. As 70,000 francs are spent annually in the French hospitals for leeches, the question of supply is important.

In a discussion which followed the reading of this report of the Academy, M. Bouillaud stated that he formerly used from 8 to 10,000 annually, but that now he had substituted cupping, and only uses 500. He cups for erysipelas, and on joints attacked with acute inflammation. M. Lisfranc thought leeches were preferable, not only in particular situations where cupping could not be performed, but from their producing a revulsive irritation in the skin, which is attended with excellent effects.—*Gazette Médicale de Paris*, No. 40, 3 Oct. 1835.

DISEASES OF BRITISH GUIANA.

To the Editor of the London Medical and Surgical Journal.

Sir—I am aware that the principles on which your Journal is conducted, must exclude subjects of mere polemical and vain disputation. I trust that you will perceive, however, that the following remarks are not dictated by any ill feeling, or a mere spirit of controversy, and therefore may perhaps be found worthy of a place in your Journal.

I had no expectation that a few passing and incidental remarks on tropical diseases (which occur in my pamphlet on British Guiana) would have been considered worthy of a serious critique and refutation by the learned editors of the British and Foreign Medical Review; but since I have been so honoured, I think it proper to offer a few remarks on some of their statements, reserving for another opportunity a discussion of the medical creed on which their decisions are founded. I do not pretend to answer the Reviewer *seriatim*, for I had only a transient glance of the article, soon after it was published, and do not recollect all that was said of it.

I am aware that Reviewers are a privileged class, and may say what they please of any book, although, perchance, they may understand little or nothing of it; and, beside, reviews are not always written by the editors, nor do I believe the present was penned by either of the eminent individuals whose names embellish the title page. It bears the impress of one, as the Germans say, recently from the *muhl*.

Nor would I now say a word in reply, had not my attention been recalled to the subject by a most judicious and veteran physician, who has recently adverted to this Review*, and who has remarked, "the hints you have briefly thrown out in your pamphlet on Emigration to Guiana, contain in few words subject matter of exceeding importance: they are, I know, founded in truth and experience, and when duly considered by men of understanding, who are not hoodwinked by the senseless pedantry of the schools, will be found to present most important matter for consideration;" and he conceives I ought to answer it, not, he says, that it (the Review) is intrinsically worthy of notice, but as appearing in a respectable Journal, edited (ostensibly at least) by gentlemen of high literary distinction.

It is true, doctors often differ in opinion, but I may here remark, that, as a man of research, of talent, and observation, Dr. Robson, the gentleman alluded to, is surpassed by few indeed, or by none, possessing, as he does, the most matured experience in the diseases of all climates in Europe, Africa, and America. On another occasion, speaking of the Edinburgh school (of which he is a graduate) he observes, "It is sufficient to say that Cullen is still the class-book, and therefore no material improvement is to be expected in that quarter. This serves to show that this gentleman possesses a more liberal mind than we observe in certain servile worshippers of mammon.

In the little tract in question, the reviewer seems to have looked for a system, or another *cyclops*, perhaps, of practical medicine, but appears disappointed in its scanty information—in its being unmethodical—and what is most unpardonable, it is, says the reviewer 'unorthodox.' Had a web been spun out from Cullen's First Lines—from Mason Good, Thomas's Practice of Physic, or other oracle, all would doubtless have been right, although this part was intended only to offer a few general remarks on the influence of climate on the human frame, and chiefly in reference to the cutaneous secretions†. It was not expected that these cursory and incidental remarks would have been criticised as if it were intended for a detailed history or medical topography, when the express purport was merely to point out one of the most eligible spots on the globe for colonization.

The protective influence of the climate against phthisis, is, by the reviewer doubted, and all the statements are considered erroneous or apocryphal. I had suggested the emanations from the soil as one probable

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* No. 2.

† As in hot climates perspiration is more copious than in cold ones, and it is necessary it should be so, owing to the greater putrescency of the fluids, its suppression is hence the more pernicious and productive of disease.

cause of exemption from phthisis in Guiana, and the reviewer is puzzled to understand what these emanations are. This I have stated, in another paper, to be the sensible evolution of sulphuretted and carburetted hydrogen. In the saline swamps of the coast, abounding with courida, (avicennia nitida) there are abundant gaseous exhalations, cognisable by the sense of smell, and we may often observe continuous streams of gas escaping or bubbling up from the bottom of muddy and stagnant pools of water.

Some allusion was made in the pamphlet to the depuration of the blood by the cutaneous secretions, and respecting the presence of pus in the clammy sweat of hectic patients. To this the reviewer objects, and would wish to know by what precise or conclusive experiments the fact has been ascertained. It cannot be pretended that we have any direct or chemical test which will serve as a certain diagnostic of pus, although the subject has been largely discussed, and with very little profit to pathologists. At the same time, very ordinary powers of observation may convince us, that not only the altered serum of the blood, but pus also, is occasionally evolved along with the perspirable matter; and in the foul and clammy sweats of patients advanced in hectic, we constantly find it partake, in its fatuous smell and sensible properties, more or less of the character of pus—in proportion to the severity of hectic symptoms—or to the quantity of pus thrown off from the ulcers, a part of which is, of course, reabsorbed, or taken up by the lymphatics, and evolved chiefly by the cutaneous exhalents in the matter of sweat*. The rapid absorption of pus and other fluids is well known, and acknowledged by every person of intelligence—and this it is which occasions hectic, whatever Hunter may have advanced against this most important and obvious fact—and if not carried off by the exhalents, what, I would ask, becomes of the fluid which is thus taken up from extensive abscesses and ulcers? Will it still be denied that absorption takes place, or that being absorbed, it remains a component part of the blood, and that notwithstanding that this fluid itself is continually undergoing renovation by this very process, or by absorption and secretion? Pus has been detected in the urine of hectic patients, but it chiefly goes off by the cutaneous emunctories, as is evident enough to any person of common observation†.

* Should any one deny the power of the lymphatics to take up gross foreign matter, let him but turn to the experiments of Magendie, or the lectures of Dr. Ryan on this subject, in Lond. Med. and Surg. Jour. vol. 3, or even to the Phil. Trans. Nos. 270 and 275.

† "It is interesting to remark, that the phlebitis following wounds seldom shows itself till suppuration is established in t wound, as occurred in the case of the wom mentioned above, where the cephalic vein flamed after an abscess had formed at t bend of the arm. This circumstance is s more curious as regards the etiology of i flammations, for it cannot be doubted, af the facts related by M. Ribes, in the 3rd v of the Mémoires de la Societé d'Emulatio and in the 8th vol. of the Revue Medica 1825, and after several other similar fa collected by different observers, that the takes place, by the small branches of t veins, an absorption of pus with which t edges of wounds become infiltrated, or whi is deposited in abscesses. In the body o man, who died from phlegmonous erysipel oocupying all the fore part of the thigh a a part of the integuments of the abdome besides abscesses, containing pus and pu lent matter, in the cellular tissue, we fou pus, mixed with a reddish serosity, in t trunk of the internal saphena vein. It remarked, also, in persons dying of sm pox, that the venous branches coming fr parts of the skin covered with confluent p tules, are generally filled with that fluid, a often inflamed."—*London Medical and P sical Journal*, vol. i, 1826, page 375.

* The disease of glanders was commu cated by transfusing the blood from c animal into the veins of another.

Mr. Pearson, in the Philosophical Tra sactions, adduces an experiment of Pr fessor Coleman, which proves that m bid matters constituting disease, (althou undiscoverable by any chemical mea may be actually and truly mixed with t blood, and borne along in the circulatio and although denied by the reigning affect pathology, it is in this manner chiefly (fr perversion of the fluids) that diseases origi ate: and it is mainly by the perspirati that nature depurates the blood and t system of such effete or morbid humou lymph, or serosities. Portal mentions case of swelling of the arm and consumptio induced by stopping the axillary secretio and numerous instances have been notic of severe and fatal disorders arising fr suppressed perspiration in the feet. Su considerations discover to us the latent caus of those diseases which, in common cant. a denominated *idiopathic*. Hectic or phthi is a disease of the solids and fluids, a mainly of the latter, as must be ackno ledged by all who do not wilfully sh their eyes to the light of truth, or run blin fold after the two infallibles, or "hi authorities," so termed—Cullen and Hunt —the Gog and Magog of modern patho gists.

Matters taken up by the millions pumps and spongy surfaces, are carried partly by the kidneys and intestines; but,

before observed, are chiefly eliminated by the secretion of the skin, which often becomes very fetid and offensive. Dr. Young observes, "the fluid discharged from the skin (in this disease) is more or less unpleasant in its sensible qualities, especially if suffered to accumulate, by a want of attention to frequent changes of linen. When a diarrhœa supervenes, in the later stages of the disease, the sweat generally disappears, and sometimes one of these affections succeeds the other alternately, at longer or shorter intervals."

In further support of the fact, that a purulent secretion is evolved by the skin in advanced cases of hectic, we may observe that the perspirable matter is then found to be more viscous, and highly charged with the principal constituents of pus, or a peculiar animal matter, with muriate of potass and phosphate of lime. This I have myself observed, and any one may satisfy himself of the same with very little trouble.

As before noticed, the protective influence of the climate against scrofula and consumption was doubted. Now, Dr. Trotter* has seen scrofulous tumours and ulcers in sailors gradually subside as they approached the tropics, continue well whilst they remained there, and reappear on their passage back to England: and from long experience I know that such tumours are often dispersed by promoting perspiration, and the power of the lymphatics.

Rush, Portal, and the most judicious physicians, have constantly regarded consumption to be a disease of the constitution, —not consisting merely of an ulceration, or loss of substance in the lungs,—of course not to be disposed of by stethoscopes, or any oracular mummery. Hence, too, we see the reason that consumption formerly (in the times of Morton, Sydenham, Bennett, and others) was not regarded as an incurable disease, as in the present trifling practice. For then, when the disease was more correctly referred to a depravation of the fluids, much attention was given to the use of such combinations of remedies as tended to alter the habit of body, to promote the action of the absorbents and all the secretions,—thus eliminating morbid matters and depurating the blood.

But the deadly sin of heresy, and the favour shewn for the "antiquated and exploded humoral doctrines," has doubtless kindled the ire of the faithful and orthodox reviewers—the worshippers of a system which the writer has impiously denounced. It is in hot climates, however, where fevers, inflammations, and ulcerations are violent and rapid, that we discover the insignificancy of the common European routine practice. In northern climates, diseases are mild and slow, and, for the most part, yield to the efforts of nature—in reality, seldom requiring the aid of medicine. This is well known and acknowledged by every candid and honest physician, and is tolerably well proved by the homœopathical humbug, which, by doses of the millionth of a grain, is found equally successful with the strict Cullenian rules of modern practice—nay, often much more so, owing to the immense advantages derived from a due observance of diet and regimen.

I greatly fear I shall further excite the wrath of these conscientious men, when I declare, that the aboriginal natives of America, who are regarded so contemptuously, effect more with their assiduous attention to baths, frictions, medicinal herbs, roots, &c., by far, indeed, than is done by the common routine practice of physic as usually pursued in Europe,—or in North America—for there, though they have adopted many of the Indian remedies, and thus rendered their pharmacopœia decidedly more valuable than any other extant, yet very many, from an ignoble pride and disregard of truth, affect to despise and hold in contempt any knowledge derived from such a source, pretending that, in making their selections, they have been guided by the lights of botany and chemistry alone! Botanical knowledge is, as we all know, of great avail in discovering the properties of plants; it was not by this method, however, that the American pharmacopœia has been enriched with some of the most important of remedies, but chiefly through the Wiocists, the Indian or native physicians. The reviewer, however, in the fulness of his wisdom and orthodoxy, condemns *in toto* the theory and practice hinted at in the pamphlet, as pursued amongst the Indians —denying matter of fact statements,—and without offering any proofs, he denounces the whole as erroneous, false, unorthodox. From this sweeping verdict I must appeal to the decision of better and more impartial judges. I have already mentioned one, who has for a long period practised medicine in tropical countries, as well as in Europe, viz. Dr. Robson. Another, and an old traveller in Guiana, Ch. Waterton, Esq., of Walton Hall, (author of the well-known Wanderings in South America,) has asserted that every item I have stated is correct; see Loudon's Magazine for August last. See also, for other local testimonies, the Guiana and Demerara Gazettes, where the pamphlet is reviewed by men of at least as much sound sense as he or they of the British and Foreign Medical Review. In the London Medical and Surgical Journal, vol. 8, Dr. Ryan (and he, I guess, knows something about the matter) says, "Our author next gives some directions to those who visit tropical climates, which deserve attentive perusal;" and, after quoting them, observes, "Such are his opinions, and we leave the reader to

* Medicina Nautica.

estimate them. We must, however, remark, that those who intend to visit Guiana, medical or civil, ought to peruse this pamphlet. It is both instructive and interesting to the general and medical reader." In numerous other periodicals it has been noticed with approbation, and that almost unanimously: See Literary Gazette, London Journal, Magazine of Botany, Renshaw's Medical Journal, Tait's Edinburgh Magazine, Metropolitan, &c. &c.

I shall conclude by offering to the sage Reviewer a word of advice from a very experienced and judicious physician of Dublin*—"I must beg to urge this consideration, that in medical as in other scientific pursuits, truth should be our sole object, and that this sublime end is best obtained by emancipating the mind from the shackles of authority, however exalted; by reading nature attentively for ourselves, and drawing our conclusions from the phenomena which she presents."

I am, Sir, &c.

JOHN HANCOCK.

London, July, 1836.

GUY'S HOSPITAL REPORTS.

Fracture of the Scull—A portion of Bone removed.—Edward Smith, aged 9, was admitted into Accident Ward, Oct. 28, 1835; having fallen, half an hour previously, from the height of 20 feet, into the hold of a vessel. There was a wound, of a semilunar form, an inch and a half in extent, over the right temple; and, on examination, a fracture of the frontal bone, near its junction with the parietal, was detected; a triangular portion being depressed to the depth of a quarter of an inch, with its pointed extremity resting on the dura mater. The boy had been at first stunned by the blow, but in a few minutes he had recovered his senses. On his way to the hospital, a quarter of an hour after the accident, he was seized with vomiting, and again became insensible. At the time of his admission, he was capable of being roused, and was sensible to pain. His pupils were obedient to light: extremities cold; pulse 60, small and feeble: respiration free, and without stertor. There was from the wound a slight hæmorrhage of an arterial character, which was easily restrained.

Mr. Morgan was immediately sent for; who enlarged the wound, and after having removed a triangular portion of bone with Hey's saw, endeavoured to raise the depressed portion with the elevator; but considerable difficulty occurring, other portions of the sound bone were nipped off with a small pair of tooth forceps; after which it was easily removed. The dura mater was seen pulsating freely, and there was no apparent laceration. The edges of the wound were brought together by three sutures, and a light bread-and-water poultice was applied. His pulse rose to 74 after the operation, and the temperature of his body increased.

At midnight, re-action having taken place, five grains of calomel were given, and six ounces of blood taken from his arm. He passed a restless night; and on the following morning complained of pain in his head; but he was become sensible, and recollected the circumstances attending the accident.

It is unnecessary to detail the daily reports of the case. Some febrile symptoms at first occurred, with puffiness and erythematous redness about the right side of the head and face, which gradually subsided, under the use of purgative and diaphoretic medicines. On the 30th, he complained of pain in his right thigh; and, on examination, Mr. Morgan detected an oblique fracture in the upper third of the femur, without displacement. The limb was secured in splints, on the double inclined plane. On the 31st, the right upper eyelid was observed to be paralytic; and on Nov. 2, a spasmodic action of the muscles of the right side of the face took place. These symptoms, however, soon disappeared; and on the 12th of November the following report was written:—

"The paralysis, and the spasmodic twitching, have quite subsided: the wound is discharging freely; and the granulations inosculcating."

From that time he progressively improved, no further bad symptoms appearing; and on the 10th of December, six weeks after the accident, the wooden splints were removed, soap-strapping and pasteboard splints were substituted for them, and the boy was permitted to sit up for a few hours.

Dec. 22. The wound of the head was quite healed, and he walked about the ward on crutches.

Jan. 3. Wishing to return home, he left the hospital this day, within ten weeks from the time of his admission. Pressure produced no pain in the situation of the wound; and the part seemed firm and dense, as if the opening in the scull had united by bone: but from inability to straighten his limb, he was still lame.

Compound Fracture of the Scull—A portion of Bone removed.—John Bryan, aged 13, was admitted into Cornelius Ward, at 8 o'clock P. M., January 21, with a scalp wound, two inches in length, on the left side of the head, over the anterior and superior part of the parietal bone, half an inch posterior to the coronal suture, and at about the same distance from the sagittal suture, occasioned by a brick-bat being thrown at him by a drunken man. On examination, a fracture was detected, with but slight depression; there was

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* Dr. Mac Adam—Med. and Surg. Journ. vol. 3.

also a slight scalp wound at the back part of the head; and considerable tumefaction existed over the left eye, occasioned by his falling forward, over some projecting body, at the time of the blow. There had been no sickness, and he was only rendered insensible for a few minutes.

On admission, he was perfectly sensible, and assisted in undressing himself: his pupils were obedient to light: pulse 68, small and feeble: perspiration natural: extremities cold: countenance pallid. He complained much of pain in the forehead. On being placed in bed, slight shivering was observed. Hot water was applied to the feet, and the head was shaved. Mr. Morgan was sent for; who, enlarging the external wound, found the bone was depressed, but to a slight degree, to the extent of an inch. Fragments of the sound bone were then removed, by a small pair of tooth-forceps; but this failing to effect the intended object, a portion of bone, sufficient to admit the elevator, was removed by Hey's saw, on the inner side of the fracture. The depressed portion was then raised to a level with the surrounding bone; immediately upon which, half an ounce of venous blood escaped, probably from the diploë. The edges of the wound were brought together by one suture, and a light bread-and-water poultice applied.

Sumat. Col. c Cal. gr. viij. stat.—M. M. c M. S. quartis horis.

1. p. m. He was comfortably asleep: pulse 90, small and feeble.

22. He had passed a comfortable night: felt no pain: pulse 90 rather fuller: surface of the body warm: bowels opened once. He was directed to take gruel.—Pergat.

Vesperc. He was perfectly sensible and quiet during the day: his pulse had risen to 120, feeble but soft: tongue slightly furred. The dura mater seen pulsating freely: bowels open: suppuration commencing.

24. He had passed a restless night. He felt no pain in the head; but complained of uneasiness on the right side of the neck, where a gland was enlarged. He appeared drowsy: pulse 100, hard and jerking: tongue furred: skin hot and dry: the wound discharging freely.

Sumat Ol. Ricini ℥ ss. stat.—Julep Rhei comp. ℥ ss. ter die.

25. He had passed a better night, and felt no pain: the cervical glands were enlarged, and painful. Pulse 120: bowels freely open: tongue furred.

28. He had slept well, and felt no pain: the bowels were freely open. The sutures had ulcerated through, and the edges of the wound were separated, exposing the dura mater, which was seen pulsating freely.

Applic. Emp. adhesiv. Emp. Sapon. part æqual.—Pergat.

30. He slept well. About an ounce and a half of blood mixed with purulent matter, was discharged from the wound. His pulse was 88.

Jan. 31. Rather more blood had been lost during the night. In other respects, there was no change. The cervical glands were enlarged, but not painful.

Feb. 1. Bleeding had returned during the night, but he had slept well. He appears rather more drowsy. The pulse was 70, rather feeble: tongue clean: bowels not open.

Sumat Rhei cont. gr. x. Hydrarg. Submur. gr. ij. Zingib. cont. gr. ij. statim.

2. Hæmorrhage of a venous character, to the extent of eight ounces, had occurred during the night. There was some difficulty in restraining it; but it was stopped by the application of a cold embrocation. The pulse was 110, small and feeble.

In the evening, hæmorrhage, of a venous character, occurred to a most alarming extent, nearly twelve ounces being lost; and on opening the wound, it was discovered that the longitudinal sinus was laid open to some extent. Compresses of lint and bandages were applied, by which it was restrained.

Sumat Vin. rub. cyath. p. r. n.

4. No further hæmorrhage had occurred. Pulse 100, small and feeble. He was directed to take beef-tea and lemonade.

5. He complained of pain at the posterior part of the left side of the head; where a small collection of matter, under the scalp, was found. This was punctured. Bowels open: pulse 100, not so feeble: no hæmorrhage.

From this time he continued doing well, till the 9th; when, on the dressings being removed, slight hæmorrhage occurred, which was easily restrained by compresses. The abscess under the scalp healed. The enlargement of the cervical glands subsided. He was allowed to have a mutton-chop.—Pergat.

He continued improving till the 24th of February; when the compresses were removed, and the wound found to be healing fast, by granulation. The pulsation of the brain was plainly seen. A bread-and-water poultice was applied.

26. No further hæmorrhage had occurred; the wound was gradually healing by granulations, and the boy was rapidly gaining strength.

March 18. The patient was perfectly recovered, with the exception of the wound on the scalp, and that had nearly closed.

Case of Cæsarean Operation in which both the Mother and Child were saved.

The operator in the following interesting case was Dr. Müller, physician at Lowenberg, in Silesia. He was called in July, 1822, to visit a woman who had been two days in labour, and

whom he found it impossible to deliver on account of the deformity of the pelvis. She was thirty-three years old, only three feet tall, deformed in many respects, the legs and arms being disproportionately short, the fore-arms, thighs, and shins, somewhat crooked, the pelvis flat from before backwards, the chest well constructed. The gravid uterus projected very much. The whole body, when he first saw her, was bathed in perspiration, and she complained less of labour pains, than of insupportable and continual rending in the lower pelvis. The pulse was very frequent and small; and the waters had been discharged for twenty-four hours. On examining per vaginam, it appeared that the superior outlet of the pelvis was of the form of a fissure, the length of which from the union of the os ilium and os pubis of one side to the other was four inches, and the breadth at each end between one and a half, and one and two thirds of an inch; at the middle, between the prominence of the sacrum and symphysis pubis, not above two inches and a sixth. The prominence of the sacrum gave the outlet the form of a heart posteriorly, and the shape of the anterior margin corresponded with that of the posterior. The os uteri had disappeared as usual, and was close upon the upper outlet of the pelvis. The soft integuments of the child's head were pressed as far forwards as the outlet would admit of, but the head was not wedged in. The integuments were elastic, and the mother declared she felt the movements of the child.

Natural delivery was manifestly out of the question; and destruction of the child's head, although practicable, was fraught with danger to the mother, and besides could not be immediately resorted to because the child was alive. Yet there was no time to be lost, as the woman's strength was greatly exhausted, and farther delay exposed her to the risk of speedy death. The Cæsarean operation, then, appeared to be the only resource of art that remained. The patient readily gave her consent; and Dr. Müller, after the preparative evacuation of the bowels and bladder, proceeded to perform it in the following manner. At the first incision he cut through the integuments down to the tendinous expansion of the linea alba, beginning an inch below the navel, and ending an inch above the symphysis pubis. A small aperture was next made into the abdomen near the navel, the fore and middle fingers of the left hand were introduced into it, and the scalpel being then passed between them, the fingers and instrument were carried downwards till the requisite opening was completed. This was nine inches in length. The uterus now pressed forcibly forward, and many large vessels could be seen under its glistening surface. A part of the uterus was pinched up, and an incision, as long as that in the integuments would allow, was made through its parietes where they were most free of vessels. Very little hæmorrhage followed the wound, and care was taken to sponge all the blood away so long as it continued to flow. As soon as the incision was completed, the child pressed outwards with its feet on the operator's left hand, and was immediately removed without difficulty. It was alive, healthy, vigorous, and weighed seven pounds and a half. The navel string was secured in the usual way, and the placenta soon afterwards was removed by introducing the hand previously cooled in water. During this part of the operation pressure was made upon the abdomen, to prevent the entrance of air into the cavity. The wound was now united by adhesive straps, and covered with charpie; a fustian belt was then put on and tightened. At the lower angle of the wound, an opening an inch in length was left without straps, for the discharge to flow through. Meanwhile the uterus was felt contracting in the usual manner, and formed a ball in the left flank.

A good deal of blood issued from the vagina after the removal of the placenta, and again after the dressing of the wound was completed. The patient was directed to remain in the supine posture, and care was taken to make every arrangement before the operation to insure perfect quiet for some time after it. In the evening there was some fever but no pain; and during the night she slept none. Next day the fever had increased, the pulse was very frequent, the thirst inextinguishable, the pain of the lower belly severe and constant, and she had snatches of sleep disturbed by startings; but during the night she slept well. During the third day the fever and pain were moderate, the abdomen a little swelled: in the evening the fever increased; at night she had little sleep. On the morning of the fourth the fever was again moderate. The wound, which had suppurated, was dressed. In the evening the usual febrile exacerbation occurred, with increased swelling, but little pain. The straps having become loose, they were carefully removed, and fresh ones applied. The edges of the wound were hot, swollen, and florid. The secretion of milk had commenced. At night the patient slept well. On the morning of the fifth there was no fever, but it returned violently at mid-day, with smarting of the wound, and increased swelling of the abdomen. The fever moderated however, in the evening the lochia began to flow, and the patient again slept well. On the sixth the abdomen was greatly swollen, the purulent discharge great, the pain considerable, the lochia more abundant. In the evening her appetite improved, and soup was allowed. The dressings were changed. On the seventh there was little or no fever, her appetite was good, the pain and swelling had abated, and the lochia was more abundant. The

wound was dressed, and it was found that two inches of it next the umbilicus had healed. From this time the suppuration continued so profuse for some days that frequent dressings were required daily. The abdomen progressively diminished in size; the fever was inconsiderable; the appetite strong. On the eleventh, tonics were administered, the treatment having previously been confined to the occasional administration of a clyster. On the twelfth the milk receded, and the pus had become less abundant, and of firmer consistence. On the sixteenth day there was not above an inch of the wound open; the pus was healthy and moderate in quantity; and the patient was able to sit up a little in bed. On the twenty-second, she was allowed to leave her bed for a short interval; but her debility was very great. For another week she continued to improve; but for a few days after that, in consequence of her having removed to an uncomfortable lodging, and been restricted to an insufficient diet, the wound, which had nearly healed, became inflamed, and a black, fetid, tough, slimy fluid, was discharged from the belly. A change of quarters and diet, together with the use of cinchona, restored her former state of progress; and on the forty-third day the wound was completely closed. Some weeks afterwards the surface broke out again, but in no long time it was finally healed up; and four years after the operation, Dr. Müller saw her in good health, which she said had not suffered any interruption after the healing of the wound. The child died of convulsions when three months and a few days old. — *Magazin für die gesammte Heilkunde.*

Delivery of a Fœtus through the Abdominal Parietes.

A FEMALE, thirty-three years of age, feeble in constitution, and of middle stature, in the advanced stage of her first pregnancy, fell from the height of a story on a stair. After recovering from the fainting fit, which was the cause of her fall, she felt violent pain in the lower belly, and had considerable uterine hæmorrhage. These affections were removed by antiphlogistic treatment, but left her in a state of extreme debility. Four weeks after the accident, she was seized with severe contracting pains, like those of labour; and, on manual examination, it was found that the os uteri was puffy and open. The apparent labour, however, did not make any progress. There was, at the same time, a copious discharge of sanguinolent mucus, constant sickness, extreme prostration of strength, hurried pulse, general paleness, and uninterrupted perspiration. The patient had never observed any movement of the fœtus after she met with the fall. Several days having been passed in these unfavourable circumstances, an inflammatory tumour suddenly appeared in the region of the umbilicus, accompanied with most acute pain and an intolerable sense of burning. The passages continued moist, but the os uteri did not increase in openness. Seven days after the false labour-pains appeared, the tumour opened, and discharged a moderate quantity of fetid pus. In the course of the same day, when the aperture had attained the diameter of an inch, the hip of a fœtus presented itself. This was in so advanced a state of putridity, that it was easily separated from the body, but it was with difficulty extracted from the opening. The thigh and foot followed, and after them the chest, of which the ribs, sternum, and clavicles were successively removed with a pair of lithotomy forceps. The arms were next extracted, then the bones of the head, after being broken down with the crotchet; and, in short, every bone of the fœtus was withdrawn from the same opening. A slimy membrane, and a light, spongy, cheesy mass in small portions of various sizes, consisting evidently of the placenta and membranes, were in the last place separated. During the progress of this extraordinary delivery, which lasted two hours, the uterus contracted occasionally with considerable force. The patient suffered much from the irritable state of the abdominal aperture. The sore was dressed with dry lint, after an injection had been used of tepid water and chammomile infusion, *which passed through the vagina.* The lochial discharge flowed partly through the natural passage, partly through the aperture in the abdomen. Under the use of generous diet, the patient, notwithstanding her unpropitious condition, gradually recovered. The discharge, which had at first, and for some time, an insupportable stench, gradually lost its odour; the wound in nine days had closed so far as only to admit a quill; and the secretion of milk receded. The patient's appetite and sleep continued good, and her mind calm and cheerful: her farther recovery proceeded with rapidity; in six weeks the opening was healed up altogether, and she was able to resume her household occupations in her usual state of health. Dr. Müller, to whom this singular case occurred, has appended a few remarks on its nature, and endeavours to establish that it was not an instance of extra-uterine gestation, but of ordinary pregnancy; that the accident must have excited inflammation and suppuration of the anterior surface of the uterus; that this disorder passed by continuity of surface to the abdominal parietes, and gave occasion to the false passage. This certainly appears the only rational account that can be given of the progress of the case. The complete recovery of the patient in such disastrous circumstances is certainly, as the author

observes, a most extraordinary instance of the restorative powers of life. "Nature, too, has her Cæsarean operation!"

The London Medical
AND
Surgical Journal.
Saturday, August 6th, 1836.

MEDICAL APPRENTICESHIPS—THE INJUSTICE AND DISADVANTAGES OF THEIR LENGTH—EVIDENCE OF MR. NUSSEY RESPECTING THEM.

It was acknowledged by Mr. Nussey (then Master of the Apothecaries' Company), on his examination before the Medieal Committee, that an apprenticeship of five years was too long, and that one of two years was a sufficient period for such a probationary portion of the education of a general practitioner. If such be the fact—and there will be few, we believe, who will be inclined to doubt it—how is it that the Company of Apothecaries have persisted for upwards of twenty years in compelling candidates for their diploma to serve an apprenticeship of five years—for if such a confession as that made by Mr. Nussey is applicable to the present, it was no less suitable to former periods of the Society's existence. The Board of Examiners may say that such a thought never struck them before; but this will not be believed, for the medical press, for years past, has shown the enormity of young men spending five of the best years of their life, in the great majority of instances, behind a counter, little better than errand-boys, and subjected to the most rigorous confinement. Mr. Nussey was asked "if the term of apprenticeships were lessened to one or two years, would general practitioners receive as large apprenticeship fees as they now do?" "Certainly not," was his reply; "they could have no pretensions to it; the fee is supposed to go towards the board and lodging." *Supposed* was a proper word for the ex-master to use. We are fully aware that such a supposition has been too frequently made use of to authorize the taking of such large fees as under the present system are received. But Mr. Nussey knew—must have known—that, in almost all cases, the apprentice after the first year becomes, in fact, the *assistant*—that he dispenses, and does all the other *duties* of an assistant, even to the dusting of shelves and the washing of bottles! How is it then that an apprentice should pay at the rate of 40*l.* or 50*l.* per annum, for his "board and lodging." The fact is monstrous; for should there be no apprentice, the practitioner would have to employ an assistant, who would not have to pay for board and lodging, but on the contrary, would, in addition to them, be in receipt of a salary. There is no justice then in receiving such large fees for apprentices, in most instances, as have been given. Mr. Nussey said, that "from what I have seen, I should say that no disadvantage arises to a young man from passing three, four, or five years in apprenticeship to an apothecary; I am not aware that young men follow menial offices in such apprenticeships." Mr. Nussey's evidence is not altogether consistent; yet it will be observed how cautious he is in the former part of the last paragraph, —he did not see any *disadvantage* to a young man &c. Now we will tell Mr. Nussey in what the disadvantages of a long apprenticeship consist, that is in nine-tenths of the cases in this kingdom. "The necessary manipulations," as Mr. Nussey calls them, are learnt in less than the first six months of an apprenticeship. The next four and a half years are spent, how? Why, in the drudgery of an open shop or surgery, the apprentice, as we have said, has the whole duty of an assistant to perform, and this duty keeps him employed nearly the whole day; or if he has a little leisure, his mind has been so unsettled by his duties, that he is glad to give it to relaxation rather than to study. With regard to the

little practice he may see, that we contend is worse than useless—it is empirical; and he prescribes as he has seen his master do; but for what reason, or upon what principles besides, he knows not, for the general practitioner has little time to instruct his apprentices, even in those instances in which he has the greatest desire to do so. Here, then, is the case; for the first *six months*, the youth who is apprenticed to the general practitioner requires a certain degree of knowledge—knowledge that is useful—"the necessary manipulations." But after that, for the remaining nine-tenths of his apprenticeship, he goes a round of the same mechanical employments, the same dispensing of medicines, the same duties of dusting shelves and washing bottles, and at the expiration of his term, he enters to his lectures as to a new world, and he finds, to his sorrow, that though he thought he knew a little, that, in fact, the knowledge he has attained is not of the right sort, and he has to commence from the beginning again. This, in nine-tenths of cases, is the fact—the young men entering to lectures are exceedingly deficient; in fact, they are literally about to begin their studies, and they look upon the past five years as lost to them, or worse, as having kept them from more useful and more exalted pursuits.

Look now, for a moment, on "this picture," and turn to the one we will pourtray:—a young man is apprenticed for twelve months to a general practitioner, in order to acquire a tact in "the necessary manipulations;" at the expiration of that period—say he is then seventeen years of age—he enters to lectures, with a mind not yet made unfit for study by a long course of mechanical employments, and a constitution not yet weakened by long confinement to the house; for the next four and a half years, or for the next six years, he spends his time in the dissecting-room, in attendance on lectures, and in the wards of an hospital. Which is the most likely to be an efficient practitioner of the two following—he who has spent his seven years thus: five years behind the counter, in the drudgery of manipulations, and *two years* in attendance on lectures, dissections, and hospital practice, or he who has served twelve months as an apprentice, and has spent the remaining six years in the acquirement of real and practical knowledge? It is scarcely necessary to give an answer to such a question. Does Mr. Nussey now see no *disadvantage* in a youth serving a five years' apprenticeship?

In some instances, we are aware that in the indentures, it is stipulated that for the last two years of his servitude, the apprentice should be allowed the privilege of attendance on lectures; now, in such cases, there is a manifest and important advantage to the pupil, above that of his serving as an apprentice, and then entering to lectures. But this proviso in the covenant was scarcely ever entered, a few years since, and now is by no means frequent. There is one way in which an apprenticeship of five years would be of infinite advantage to a young man. Let him spend the first twelve months as we have said, in acquiring the necessary manipulations; and let the remaining four years be devoted to study. Let him then enter to lectures and hospital practice, and let his leisure hours be under the superintendence of the gentleman to whom he is bound. Let him find *a home* at his house, and let him be one of the family circle. We shall then willingly agree to the justice of large fees, for we are convinced there would then be a better understanding, a kindlier feeling, existing between the governor and the governed; and that then a medical apprentice would be, indeed, what we contend at the present he is not, "*one bound by covenant to a general practitioner, who engages to instruct him fully in his art or mystery.*"

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CHAIR OF ANATOMY AND PHYSIOLOGY IN THE LONDON UNIVERSITY.

Numerous candidates, in addition to those we mentioned last week, have sent in their names for the vacant chair. It has been proposed to separate the professorship into the departments of anatomy and physiology, the latter of which Dr. Grant is expected, as a proper person, to fill. We believe that no one, who has any knowledge of Dr. Grant or his writings—and who has not? will be inclined to doubt his fitness and eligibility for the appointment; indeed, we believe, if the whole empire was sought through, a more fitting individual could not be found. We trust the Council will not lose so good an opportunity of adding strenth to the medical faculty.

Dr. Lizars, we believe, is spoken of as one likely to be elected, at least, to the anatomical department. His great name as an anatomist, and the distinguished place he has wrought for himself in that department of science, are sufficient guarantee of his worthiness as a successor to Dr. Quain.

Among the other candidates, are Dr. Sharpey of Edinburgh, Mr. Ellis of Dublin, and various other individuals.

HEREDITARY DISEASES.

The transmission of certain diseases from parent to offspring has been attested from the earliest records of medicine; and such cases are of occasional occurrence in our times. The following examples are well worthy of notice.

Observations on Pathology, Anatomy, and Physiology. By Dr. Holl.—*Redundancy of Organs in the whole of a Family.*—A healthy, well-formed woman gave birth to four infants, offering anomalies in conformation, and to two others which were well formed; the third infant was a male, had six fingers on each hand, the supernumerary one attached to the base of the little finger; the second and third toes of both feet were confounded together. The metacarpal bones of two toes of the fourth infant, also a male, formed an acute angle, but were not confounded, and the same deformity existed in the fifth infant, which was a female. The sixth infant was a female, and had six toes on both feet; those on the right foot are distinct; the metacarpal bones of the fifth and sixth toes of the left foot are disposed like those of the fourth and fifth infant; the first phalanges of these two toes are united.—*Meckel. Archiv. für Anatomie und Physiologie*, 1828. *No.* 2, *p.* 177. *Bulletin des Sciences Med. Avril*, 1829.

Malformation from defect of plastic Force.—A well-formed man, of a feeble constitution, a valetudinarian, and unmarried, is the father of three infants, by different women, all of whom were healthy and well-formed; the first infant was a delicate female, deprived of the auricular cartilages; the second was a male, very feeble and a hypospadias, the urethra opening on the inferior surface of the penis; the third infant was still-born, and had hare-lip and cleft palate. Without doubt, the father was the cause of these wants of development. The author institutes a comparison between the phenomena of electricity, and those of the generative system, and he concludes, that generation is to be considered an electrical act, founded on the different polarity of both sexes, the positive electricity predominating in the male, and the negative electricity in the female. The author describes another case, in which the father had a variegated iris, and all the children that resembled him had the same deformity.

Another case is related, the particulars of which were as follows:—A healthy man married a female, in whose family strabismus was hereditary, and some of whom had deafness. The first infant was deaf and dumb, a male; two daughters had no disorganization; the fourth boy was deaf and dumb, the fifth boy was well-formed, and the sixth male was deaf and dumb.

Precocious Menstruation.

A case of this kind is related in the third number of "Meckel's Archiv. für Anat. und Physiologie" for 1827. At birth this child was of an ordinary size; but after the first month she commenced to grow rapidly, and at nine months was of the usual size of a child of a year and a half old. About this time she passed from the vagina some drops of blood; at eleven months of age she had another and more abundant sanguineous discharge, and at the same time the mammary glands began to be developed, and hairs appeared on the mons veneris. At fourteen months she had a third, and at eighteen months a fourth sanguineous evacuation from the vagina. The whole physical development of the child is precocious; but her mental faculties are not greater than those of other children of her age. She appears to have no desire for sexual intercourse.

Absorption of the Placenta.

Dr. C. F. Naegele Professor of Midwifery in the University of Heidelberg, has published in "Froriep's Notizan," some cases which seem to shew that the placenta, when retained after the delivery of the child, is sometimes absorbed by the uterus. In 1802, Dr. Naegele was called to a lady, who, in consequence probably of fatigue, "was brought to bed between the twenty-fourth and twenty-sixth week of her pregnancy; the child lived several hours after birth; little hæmorrhage followed, but the placenta did not come away. The cord, which was very thin, had been torn off at its insertion, as far as could be judged from the length of it. The widwife, who was an experienced as well as a highly respectable person, informed me that it had occurred as she passed her finger along the cord to ascertain whether the after-birth were already separated; and assured me that she had not exerted too much force in endeavouring to extract it, in which account the by-standers also agreed. The lady and her friends were under considerable alarm on account of the placenta not coming away; and the widwife, who suffered not less anxiety for her patient, scarcely quitted the bedside for the first nine days, and even passed the night in her room, so that the case was watched with the greatest attention. The lochia, which was sparing and devoid of fetor, and with scarcely any coagula of blood, lasted only four days. A slight attack of fever was experienced twenty-four hours after delivery, unattended, however, with any pain of the abdomen. The breasts did not swell, the menstruation returned in eleven weeks, and in about three years after she bore a child at the full period of pregnancy.

In another case, in 1811, where abortion had occurred between the fourteenth and fifteenth week, from no assignable cause, and with scarcely any hæmorrhage, and which I had an opportunity of observing with the greatest accuracy, the secundines did not come away; febrile attack came on upon the third day, which soon disappeared; no local pain, no discharge from the parts of generation; the menses returned after nine weeks, and no traces of the placenta, &c. ever appeared.

An experienced obstetrician of this place, (Dr. Gotzenberger) has had the opportunity of attentively observing two cases of this kind, and assured me positively that he was perfectly convinced that no trace of the placenta had been detected, either in a solid or in a partly dissolved state.

This circumstance having interested Dr. Naegele considerably, he has, he says, endeavoured, of late years, to excite the attention of several of his professional friends, and at various times has received from them accounts, confirming the truth of his observations, "both in cases of premature labour, where the placenta had been retained, as also of labour at the full term of pregnancy, where large portions of it had remained attached, where no traces of it either in a solid or half dissolved form had come away, and this had occurred without any injurious consequences."

Professor Sebastian of Heidelberg, having lately returned from a journey to Holland, has communicated to Dr. Naegele a most interesting case which he received from the mouth of Dr. G. Salmon, of Leyden, where, after labour at the full period of pregnancy, the whole placenta had been absorbed, and the case terminated successfully.

"I am far from denying," says Dr. Naegele, "the liability to deception in cases of this sort, and am well aware how extremely difficult it is to form a correct opinion upon them. A comparison of this with processes of a similar nature, more especially with those that are observed to take place in cases of extra-uterine pregnancy, and also in animals, and a more elaborate discussion of the subject in a practical point of view, which has engaged my attention for some time, has made me very anxious to avail myself of the experience of others who may enjoy more extensive means for observation than myself.

Extraordinary length of the Umbilical Cord.

Dr. Schneider, of Fulde, relates an instance of the umbilical cord having surrounded the neck of an infant six times, and on unravelling it, the infant was resuscitated. The cord measured five feet six inches in length.—*Siebold. Journ. für Geburtsh.*

Case in which the Infant cried previous to its complete expulsion from the Generative Organs.

The object of the author is to describe the conclusions which may be deduced from this and similar cases connected with medical jurisprudence. In this case the infant's head was expelled, when the child cried and continued to do so for twenty-five minutes, when it ceased from the strangulation caused by the external genitals. He disengaged the shoulders and put an end to delivery. He drew blood from the umbilical cord, and soon afterwards respiration was re-established. He tells us that Dr. Schmidt has related twenty-six, and Dr. Leander, eight cases analogous to the present; but every obstetrician has often met with such cases. He argues that it is wrong to pronounce positively, that a child has lived because it has breathed. In cases of the kind under notice, the child must perish, unless the shoulders be delivered by the hand, so that an innocent woman may have

a dead infant, without assistance, and be sent to the scaffold. "The pulmonary examination and observations on the specific gravity of the lungs can only establish one point, which is that the child has breathed." The author labours under a mistake on this point, for the lungs may be diseased and swim in water, a fact which has led the medical jurists of this country to place no reliance on the hydrostatic test. A child may breathe in the uterus, yet be born dead. The mere fact of respiration does not establish life, though without the establishment of that function, extra-uterine life is said not to take place.—*Meditation sur la Chir. Pratique.*

Intra-Uterine Respiration.

M. Le Saurage, of Caen, has communicated the following fact to the Royal Academy of Sciences of Paris. Two days before the delivery of a bitch, the cries of her pups were distinctly heard at the distance of ten paces.—*Rev. Med.*

On the present State of Medicine in Denmark. By C. Otto, M.D., Professor of Medicine in the University of Copenhagen.

[We are indebted to our valued contemporary, the British and Foreign Quarterly Review, for the following information.]

There are two public establishments for medical aud surgical instruction in Denmark; the one the Medical Faculty at the University, the other the College of Surgery.

The Medical Institution at the University.

Denmark possesses two universities; one for the German provinces, at Kiel, in Holstein; another for the Danish provinces in Copenhagen, on the island of Zealand. The university of Kiel is, in almost all respects as to plan, the period of study, &c., like those in Germany; but that of Copenhagen, although in the beginning principally modelled after its sisters in Germany, differs at present in many respects from them.

1. *The University of Copenhagen.*

This was founded in the year 1479. The number of the professors, who are divided into the four usual faculties, amounts at present to thirty-eight; but there are, besides these, one or two private teachers in every one of the faculties. Some (the oldest) of the professors are ordinary, others (the younger) extraordinary. The ordinary professors have a higher rank, have a seat in the consistorium (the academical senate), and a better salary. Every year a new rector of the university is chosen, and out of every faculty alternately, but only from among the ordinary professors. The rector has, during his office, a very high rank, is addressed "Your Magnificency," and gets a salary of about four hundred Danish dollars. The income granted to the professors is partly derived from domains and farms given to the university at its foundation, partly from rents of churches, and partly from royal and private bequests.

The buildings of the university were for the most part burnt in the bombardment by the English in 1807, and were not rebuilt until the last year. They are now completed with a degree of taste and magnificence far surpassing the old; and the initiation of the restored institution is to take place this year, at the jubilee of the great reformation of the church, which was introduced into Denmark in the year 1536. Besides the proper buildings of the university, there are four houses, (formerly there were eleven, but seven were burnt in the year 1807,) in which four of the eldest of the professors with their families reside free of expense. The university also possesses funds derived from considerable legacies and stipends, and which are destined for the support and benefit of the students, for the enlargement of the library, for defraying the travelling expenses of promising candidates, &c.

Amongst these are the following: 1. The Community and Regents; the first is a weekly stipend, and the second is a free lodging for one hundred students at the College of Regents, a large edifice, founded by King Christian the Fourth. 2. The foundation of the College of Walkendorff, the oldest in the records of Denmark, having been instituted in 1595, by C. Walkendorff, steward of the empire, for the free residence of sixteen students. 3. Borch's College, called also "Collegium Medicum," built and endowed by the learned C. Borch, for the support of sixteen students. 4. Elersen's College, founded and endowed in the year 1689, by Jörgen Elersen, counsellor of state, also for the support of sixteen students. Independently of these foundations, many bequests have been granted to the university, the interest of which is appropriated to the support of indigent students and to the general extension of literature.

In order to authorize a student to be matriculated at the university, and to get admittance to the lectures, a public examination must be gone through: this is held once annually, (in October,) and is called "examen artium." At this the candidate, recommended by the rector of a preliminary school or by a private teacher, is examined publicly, both by means of written exercises and *viva voce*, in every thing relating to "humaniora," viz. Latin, Greek, history, geography, mathematics, religion, the living languages, &c. The examinations are conducted by the professors in the philosophical faculty. It is not allowed to any student to undergo this examination before the age of seventeen; or, at least, a dispensation from this rule can only be granted by a special permission of the Royal Board of the University, which will be

noticed hereafter. The examination is one of the most impartial, and at the same time the most rigorous; and no one who is deficient in the knowledge of the several branches of classical and literary education can obtain a character, (there are three,) which will enable him to procure "testimonium civis academici;" in other words, which will gain him admittance to the university, and confer on him the name of "student;" a name which in Denmark is more respectable than anywhere else. Matriculation without this "examen artium" is only allowable to those who, after having been matriculated at some other university, intend to continue their studies here, or to take the degree of doctor.

As a stimulus to diligence and literary labours, eight prize-essays are annually proposed in eight different branches, (theology, law, medicine, philosophy, mathematics, philology, history, and æsthetics,) to which only students and candidates without any public office are allowed to aspire. The prize is a golden medal, (on one side of which is the figure of Minerva, and the other a wreath of laurel, with the legend "Studio et Ingenio,") or the sum of 5*l*.

The number of students at the university of Copenhagen has been increasing for many years; and, considering that these consist of natives only, the fact proves a laudable wish of the Danes in general to give their children a literary education. It is even very common for the sons of tradesmen to be brought up at the university. One of the causes which contribute to keep up the number of students is the comparatively small sum of money required for matriculation at the university, (sixteen dollars, or 1*l*. 12*s*.) In order to prove the increasing number of students, I subjoin the following table, by which it will be seen that, even after the year 1811, when Norway got its own university by the bounty of the present king, the number did not diminish very much, and has since been increasing considerably.

Years.	Students.
1808	90
1809	83
1810	83
1811	183
1812	102
1813	84
1814	107
1815	98
1816	86
1817	116
1818	111
1819	102
1820	139
1821	129
1822	153

&c. &c. &c. At present the number of students is from 700 to 800.

But whilst there was so considerable a number of students at the university, the proportion of medical students was small, being not more than one or two in the hundred. The chief reasons of this were, undoubtedly, the greater expenses which medical study involves, and the few public offices in medicine compared with those in law and in theology. But in later years the number of medical students has increased considerably, so that there are now often ten or twelve in every hundred who are matriculated. The natural consequence of this great increase has been an overwhelming number of practitioners, who, however clever and active, are not able to get any public employment, and, consequently, only with difficulty and after long struggles are enabled to earn a livelihood. Nevertheless, they continue to form part of a class the most respectable in morals and the most liberal in principles.

2. *The Medical Faculty.*

In the medical faculty at the University of Copenhagen there are three ordinary and two extraordinary professors, who are appointed by the Royal Board of the University, according to a recommendation of the Faculty, but which choice must be approved of by the king. They all get an annual salary; and from among the ordinary professors there is every year elected in rotation a Dean, who superintends the affairs of the Faculty. Besides these five professors, there may be an unlimited number of private teachers or lecturers, yet not without having taken previously the degree of doctor at the university, otherwise, a special permission is to be obtained. There are at present only two such private teachers, so that the number of lecturers at the Danish Medical Faculty does not amount to more than seven. This is a number which certainly is not at all adequate to the teaching of the numerous branches of medicine; and, accordingly, several branches, as, for instance, dietetics, military hygiène, semeiotics, the history of medicine, morbid anatomy, &c. are not at all taught. This is a deficiency in the faculty, which we hope will soon be remedied by the union of the medical faculty with the other public establishment for medical and surgical education, of which I shall afterwards speak.

The following are the names of the teachers, and the subjects belonging to their respective chairs:

Ordinary Professors.

J. L. Saxtorph, surgery, midwifery, the diseases of women and children.

D. J. Herholdt*, human physiology.

C. L. Bang, pathology, therapeutics, clinical medicine.

Extraordinary Professors.

D. F. Eschricht, anatomy and human and comparative physiology.

* Since dead.

C. Otto, pharmacology and forensic medicine.

Private Lecturers.

E. Svitzer, anatomy and dissections.

S. T. A. W. Stein, anatomy.

In the philosophical faculty of the university are given lectures on the collateral branches of medicine, botany, chemistry zoology, mineralogy, &c.

It is, of conrse, here as in other universities, that the professors are not restricted to give lectures only in those branches to which they are appointed, but may lecture upon any other they choose. This, nevertheless, very seldom happens, and it will at once be seen on what unequal terms the different branches of medicine stand at the Danish university. Anatomy has three lecturers, physiology two, while semeiotics, morbid anatomy, mental diseases, &c. have none at all. The same is the case with some other branches of therapeutics, as, for instance, diseases of the eye, of the ears, of the teeth, &c.; an anomaly which also will find a remedy in the abovementioned union of the two establishments for medical education. Another defect in the medical faculty at the university is the very small salary which the five professors receive for their labours: although they lecture almost every day during eight months of the year, the ordinary professors do not receive annually more than 1000 Danish dollars (100*l.*) and the extraordinary ones only 800 (80*l.*) The natural consequenee of this is, that the medical professors, as they do not get one farthing from the students, the lectures being all public and gratuitous, in order to obtain a livelihood, are obliged to endeavour to procure some additional office, and also to enter into private practice; the consequence of which is the impossibility of their paying that exclusive attention to their professorships which these require. Yet it is exactly on this false principle that the medical professors will be able to increase their income by practice, that the Royal Board of the university is acting in appointing a less salary to them for their labours at the university than to the professors of the other faculties; a principle which certainly is to be blamed in the severest terms, inasmuch as the salary should be sufficient to enable the professors to do without practice, or any other offices, so as to devote themselves entirely to the dutics of their chairs. The professors may certainly, besides their public lectures, give private ones, i. e. such as the students must pay for; the sum paid for such private lectures is only fiye dollars (2*s.* 6*d.*) for each [course?] and even this small sum the medical student is so unaccustomed and so disinclined to pay, that he very rarely attends such lectures. And truly, for this reason, the professor is even ashamed to ask his fee of the few who do attend. The same principle operates also as a cause of the impossibility of the professors occupying themselves with literary labours: for who that is forced t spend the whole day in the labours of a active practice is able to devote the fe remaining leisure hours to literary studies or who that has two offices to attend to (an all the professors of the medical faculty hav more than one office) can be expected to hav much time left for any scientific occupations except such as are involved in the discharg of the duties belonging to those offices?

Before he can undergo his examination a the medical faculty of the university, th medical student must have gone through th following preliminary trials:—He must b matriculated as student at the university, i.e he must have taken his examination at th "examen artium." 2. He must furthermor have undergone the philosophical examinatio (examen philosophicum) which commonl takes place in the course of a year after th "examen artium," and is divided into tw parts, at the first of which (examen philolo gicum) the candidate is again examined i Greek, Latin, history mathematics, archæo logy, and natural history; and at the secon (examen philosophicum proprie sic dictum) i physics, astronomy, and the several branche of philosophy (logic, morals, metaphysics &c.) The object of these preliminary ex aminations is to give the examiners a proo of the progress of the student in his literar career, and to oblige him to imbibe a know ledge of the natural sciences, without whic he never will become a true, learned, an scientific physician. After these two examina tions, the student may apply himself to th study of medicine; and when he requests t be examined at the "examen medicum," h must, 3, in addition to the foregoing, produc certificates of having attended the severa lectures of the professors of the faculty, an of having visited the hospitals.

When the candidate is admitted to th "examen medicum rigorosum" by the medica faculty, he must undergo the following trial of his knowledge:—1. He must examine patient newly taken in at the Frederik' Hospital (the first in town), explain th symptoms of the case, assign it a name, te the seat of the disease and its remedies, pre scribe the indicated medicine and the die &c. 2. He must give, in Latin, writte answers to a physiological and a therapeutica question. 3. He must make two anatomica dissections in the dissecting-room. 4. H must perform two surgical operations, explai their nature, the different modes of pro ceeding, the possible consequences, & 5. Finally, he is examined, *viva voce*, i all the different branches of medicine b all the Professors of the Faculty. Th written answers to the questions are draw up in the presence of an inspector, an no other help but a Latin dictionary i allowed. All the other examinations a public, and they have been hitherto in th

Latin language, the explanations of the surgical operations excepted. The oral examination lasts a whole day for each candidate, every professor examining during the space of an hour or an hour and a half.

When the examination of the day is finished, the candidate and all the auditors leave the room, and the professors hold a council, in which they determine by vote the general character which is to be given to the candidate. There are three such general characters: Laudabilis, Haud illaudabilis, and Non contemnendus. The last named is seldom given, the candidate entitled to no other being commonly rejected; but it is proper to state, that the examination of the medical faculty is conducted in the most liberal spirit, and that greater notice is taken of the general knowledge and ability of the candidate than of refined subtleties and smaller deficiencies. When the professors have agreed upon the general character, the candidate is called in, acquainted with the result, and an oath in the following terms is taken from him: "Gratulamur tibi de exhibito eruditionis specimine et speramus te eandem optimo modo in emolumentum societatis et proximi adhibiturum atque magis magisque aucturum nec non leges, quæ medicum et chirurgum obstringunt, tibi cognitas redditurum et impleturum, in cujus promissi sanctam observantiam te oportet dextrum porrigere." The testimony of having undergone the "examen medicum" is this: "anno [ ] die [ ] speciminibus scriptis et tentaminibus scriptis rite absolutis N. N. philosophiæ et philologiæ in alma universitate Havniensi Candidatus et Medicinæ Studiosus examini medico chirurgico practico rigoroso se subjecit indeque (Laudabilis or Haud illaudabilis,) discessit."

The sum which the candidate has to pay for admission to the examination is very small, not amounting to more than twenty dollars (2*l.*), of which the Dean receives five, the eldest professor five, and the youngest (as secretary of the faculty,) two dollars. Examinations take place twice in the year, in the spring and in the autumn.

When the candidate has gone through the *examen*, he is immediately allowed to practise medicine and surgery wherever he pleases in Danish States, the degree of doctor not being necessary to practise. The degree of M. D. is in Denmark but a literary honour, which only is required when any one aspires to a professorship at the university. It will from this at once be seen, how much the arrangements differ in this respect from those of the universities in Germany, and particularly in Prussia. If a foreigner wishes to practise as physician or surgeon in the Danish States, he must, besides being previously matriculated at another university, undergo a preliminary examination in the same branches of classical education that are required at the "examen artium" and "examen philosophicum," and not until then is he admitted to the "examen medicum rigorosum."

Hospital Reports.

NORTH LONDON HOSPITAL.

Cut Throat.

William Brinsden, aged 43, was admitted June 25, under the care of Mr. Cooper. He is a fine muscular man. Twelve years since he was attacked with depression of spirits, and attempted to destroy himself. He got well in a short time, and was again attacked about a month since, when he was placed under restraint in a lunatic asylum; at his own request he was discharged, and on coming home he took an opportunity, when his friends were absent, to cut his throat with a carving knife. When brought to the hospital he was faint, and it was stated that he had lost three quarts of blood. On examining the wound, it was found that he had divided the larynx, just between the thyroid and cricoid cartilages. On causing him to swallow a little water, two or three small wounds were found communicating with the pharynx. No artery of importance was divided, and the bleeding had entirely stopped. The wound was inflicted about five o'clock, but he was not brought to the hospital before ten o'clock. Nothing was done to the wound besides cleansing it. During the night a large quantity of mucus collected in the bronchiæ and trachea, and was brought up by coughing; it was mixed with blood, which had been introduced from the wound. The mucus from time to time required removing with a sponge. He was very restless at the beginning of the night, but towards morning he obtained three or four hours sleep. Pulse 110, and weak.

June 26.—The mucus collecting in the trachea makes him very uneasy.

At one, P. M., it was thought advisable to attempt to bring together the divided edges of the larynx; and for this purpose a suture was inserted into the divided portions, above and below. A tube was also introduced into the œsophagus, through the nostril, and some milk given him. A portion of the milk was returned through the small opening in the pharynx. In the afternoon, the mucus in the trachea became increasingly troublesome, and the difficulty of removing it was increased by the suture, which was therefore removed. As the mucus appeared to collect in the trachea from its gravity, and from the inability of the patient to expectorate it, his chest was elevated above the level of the wound, and when in this position a large quantity of mucus was removed. He was very restless during the night and got up, walked about, and made a

quart of urine. He was troubled with secretion in the trachea. Pulse 110, weak; mucus and sonorous rattle in the lungs.

27.—Very restless, extremities cold, pulse weak and small, 100; mucus rattle increased, breathing laborious and frequent, face livid, countenance anxious, bowels have not been relieved since he came in. An enema was administered, but nothing came away.

Vespere at five.—Pulse scarcely perceptible, hands and feet cold. Some wine and water was given him through the wound, repeated again at eleven.

The difficulty of breathing continued to increase. He expectorated now and then a bloody fluid, in which were found shreds of fibrine. He continued to get worse until the morning of the 20th, when he expired at six o'clock.

Autopsy, eight hours after Death.

The wound in the throat was covered over with a dirty coloured secretion, and emitted a fœtid odour. On taking off the calvarium two small bony projections were found close to each other, on either side of the ridge to which the fold is attached, and about half an inch below the coronal suture. The dura mater adhered to these projections, and was torn in taking away the bone. The dura and pia mater were injected with blood, and were easily separated (in consequence of the serosity which had been effused), from the cerebral convolutions. The whole substance of the brain appeared perfectly healthy, with the exception of a few minute bloody specks throughout its substance. In the fourth ventricle, on each side of the calamus scriptorius were found four little medullary masses, about the size of peas—they did not appear to offer any obstruction to the passage of the blood in the part.

On dissecting the wounded portions of the throat, the larynx was found divided anteriorly through the thyro-cricoid muscles and membrane posteriorly; the cricoid cartilage was divided in the middle. The pharynx presented four small irregular openings.

Chest.—On grasping the upper surface of the lungs slight crepitation was evident. On cutting through the roots of the lungs extensive effusion of blood occurred. The lungs were œdematous throughout their whole extent. On entering into them blood and serosity escaped in large quantities. The walls of the bronchia were congested, and their smaller ramifications and the air cells were loaded with bloody serosity, Fibrinous shreds, mixed with mucus, were also seen in the larger bronchiæ. In the right two or three dark spots of echymosis indicated pulmonary apoplexy.

Heart.—The left side was empty, the right was gorged with blood.

Stomach.—Contained a large quantity of bile. Points of inflammation were seen in the mucous lining. Other viscera were healthy.

Chorea.

William Walling, aged 12 years, was admitted June 3rd, under the care of Dr. Elliotson. Rather sanguineous temperament; works with his father, who is a dustman. Not deficient in intellect when well. About two months ago he was observed to let every thing fall which he attempted to hold in his left hand; his left leg was weak, so that he often dropped when attempting to rest on it. The right arm and leg were not affected at first. This weakness was followed by involuntary motions of the left arm and leg. This day his right side was observed affected for the first time; has had a good deal of headach—his mind has been much impaired. He was bled by a medical man about a week since, but it made no impression on the involuntary motions. No cause can be assigned for the affection, except it be a fright which he received from a donkey running at him and trying to bite him; this, he says, happened about a month since, but it cannot be depended on, as his memory seems impaired.

At present there are considerable involuntary motions of the head in every direction, also of the muscles of the brow and about the mouth; the eyes roll very much. Great motion of the arms and legs, but especially of the left; there is also great weakness in all the limbs, the left mostly. He can grasp and lift things pretty well, but is very liable to let them fall, apparently from the sudden and involuntary action of the extensor muscles. He can stand for a short time on either leg. He sometimes falls when walking, and always on the left side. He cannot run. He can continue his movements for a short time by making an effort. When asleep he snores very little, if at all, but is very restless, frequently changing his position. His sensation does not seem impaired. His countenance is rather idiotic and he frequently bursts into tears without any apparent reason. He has no headach now, and sleeps very well. Tongue clean, appetite good—bowels regular.

℞. Ferri carb. ℥ ss.; 4ta quâque horâ.

To have full diet.

6th.—Has been improving since last report. Motions not so violent.

14th. Is considerably better, his countenance not so idiotic—he can carry a cup to his mouth, which he could not before.

℞. Auge ferri carb. ut ℥ vj.

July 4th.—Nearly well. Idiotic expression entirely disappeared. Very little involuntary motion—can thread a needle very well.

22nd.—Discharged cured.

THE

London Medical and Surgical Journal.

No. 29. SATURDAY, AUGUST 13. Vol. I.—(1836).

THE LAST

ORAL LECTURES ON HERNIA,

Delivered at the School of Surgery, Peter-street.

By John Kirby, LL. D.,

Late President and Professor of the Practice of Medicine of the Royal College of Surgeons, Dublin, &c. &c.

LECTURE I.

Pathology and Treatment of Hernia.

The term hernia is technically used to signify that injury or disease, in our own language commonly understood by the word rupture, which, in its usual acceptation means the displacement of an abdominal viscus, and its protrusion beyond the natural parietal limits. The several varieties of which authors have taken notice may be arranged after the following manner.

First. Those herniæ which possess peritoneal sacs.

Secondly. Such as are destitute of that membranous appendage.

Thirdly. Those which are simple.

And lastly. Those which are complicated.

A knowledge of the circumstance of these four divisions will be found to embrace all the information deserving to be required as practically necessary on the subject of their pathology. From this arrangement you will observe, I have excluded all those varieties of which you read, and differing in their situation rather than in any essential want of correspondence in matters relating to their formation and structure.

Simple herniæ, however they are produced, and wherever they are situated, always present an immediate covering, which is the sac; and which sac is continuous with the peritonæum, being, in point of fact, a part of that membrane. Now this sac often exists long before the herniæ is externally perceptible. That there may be no mistake as to the meaning of this proposition, I shall first consider the manner in which the sac is produced; and, secondly, I will examine the changes it undergoes after it is forced to any distance from the cavity of the abdomen.

Any power by which an intestine is repeatedly urged against an undefended portion of peritonæum will finally cause that part of the membrane to yield, in consequence of a want of balance between the impulse and resistance in matter, whether the disproportion shall be natural or acquired. You are aware the peritonæum is somewhat elastic; it is consequently distensible. These are properties of this membrane which are fully acknowledged, and you see them strongly exhibited in pregnancy, in many cases of abdominal tumours, in ascites, and in several diseases accompanied with flatulency.

Persistence of the cause, gradually weakens any power of recovery which the small part exposed to its influence enjoys in virtue of its elasticity, until it at last remains somewhat fixed in that situation in which it has been found, and where it exhibits the dimple-like character which this preparation illustrates. As you see this now, it is no more than a mere superficial depression. But observe, it yields before my finger—the surrounding cellular substance obeys my pressure—the dimple becomes deeper—and on employing a little more force, you perceive it is forced into a pouch which receives the extreme phalanx of my thumb. I can withdraw this pouch from its new position and bring it nearly, but not wholly, to a level with the surrounding membrane. Thus it appears that in its stage of incipiency, a hernial sac is returnable to the cavity of the abdomen. There is no appreciable change in its structure; so that it is probable, that were it for some time retained within prescribed boundaries, it would be gradually restored to that power of resistance of which it had been gradually deprived.

I now show you a preparation in which the hernial sac is more developed. It is a larger pouch than the former. No matter how I stretch the muscles and peritonæum, it retains an undisturbed relation to those parts amongst which it has found its way. A mere yielding of the peritonæum may account for a cavity of such a moderate size as those which we have examined. I

apprehend, however, it will not be adequate to explain the formation of such a sac as I now display. It is one from a scrotal hernia, and exceeds in magnitude the largest hydrocele I have ever seen. To account for such a phenomenon, we must look out for some different and adequate cause. I believe we cannot solve the difficulty in any other way than by attributing this great extent of surface to growth. I believe, from the many comparisons I have made, that the size formed by this pouch and the abdominal peritonæum, considerably exceeds the original extent of the latter. I believe that here an addition is made; and that mere distension will not fulfil the purposes which it is often thought to satisfy; nor will the principle be found equal to explain the co-existence of many important points usually excluded from the calculations in which we are engaged.

From what I have seen, both in the living and in the dead, I am sure I may safely affirm, that those herniæ which are visible and distinguishable from their size are rarely accidents of sudden occurrence. I do not deny that they suddenly burst into perceptible prominency. I am quite aware that such things happen. But, this concession does not in any way militate against the opinion I entertain. In forty-nine cases out of fifty, a careful examination will assuredly discover the disease in various stages, from its nascency until it acquires a more decided development.

Even those persons who believe the increase to be the subject of a sudden attack, if properly questioned, will be found to furnish an insignificant testimony on the side of my opinion, and against those which may be obstinately retained. During the gradual increase of the disease, it is exposed to the influence of such causes as originally produced it, with others, to some of which all herniæ are equally liable, while many depend on the situation in which the malady exists. These operate as means of constantly repeated irritation. A chronic inflammation is the result; while to this last succeeds that deposition of lymph on which thickening of structure and many other alterations are found to be dependant.

The changes which hernial sac undergo are often much influenced by the treatment pursued in this disease. The contents being returned, a truss is applied to prevent a recurrence of the descent. The pressure it exercises, causes chronic inflammation; this leads to lymphy deposition; adhesions arise between the outer surface of the sac and the investing tissues, until laminæ after laminæ are formed, as you view them in this specimen—the sac contracts where the pressure is most strongly directed, and oftentimes a closure is effected, as you see here, while a general wasting and obliteration of the saccular cavity takes place in consequence of its disease, and according to a law of the animal economy, regulating the removal of cavities which cease to receive their accustomed contents. Appearances such as these, we must expect to meet in the practice of surgical operations. In many of them, you may be surprised by incalculable embarrassment. You will be opposed by doubts; you will be injurious by delay; nor can certainty at any time preside over one single step of your operative proceedings. You perceive those laminæ present various degrees of denseness and of opacity; they are separated from each other by cellular interstices, in some cases with difficulty destroyed, and in others easily yielding before the blunt force exercised by the handle of a knife.

Whatever alterations have taken place in the denseness of the sac, are generally situated external to the serous continuation of the peritonæum. Here are a variety of examples of herniæ of considerable size and of old duration. The envelopes external to the true peritonæal sac oppose the knife with fibrous or fascial resistance. Yet the serous character of the internal lining is preserved; it is smooth, shining, fine in its texture, and you observe I can separate it and display it in such a palpable form you cannot question its peritonæal nature. If you doubt a close resemblance, which there are so many reasons to acknowledge, your doubts will be removed, when I submit to you such adhesions as are here seen. They pronounce an identity of structure; for they never exist unless amongst parts or structures which enjoy a perfect similarity of nature. Here, for instance, the intestine is agglutinated to the sac; their union easily gives way. Here the connection is more firm and resisting, although the parts are not immediately applied to each other—bands are the means by which they are joined together. Yet, in both, we see an evidence of that harmony amongst similar parts which is never to be found between parts of dissimilar organization. The sac is, however, sometimes essentially changed; the serous character is lost, and the hernial sac wears an appearance which you can better comprehend from this example than from any description it is in my power to supply. A granular, knotty, and irregular surface attracts you, and were you to use the knife here, as I have done, you would imagine you were dividing a substance as solid as the cartilages of the ribs.

I now show you a preparation greatly at variance with those you have already seen. It is one of a hernia of unusual dimensions. It lies amongst lax structures which are raised that they may catch the attention. The peritonæal sac is of film-like fineness, and structure neither natural nor morbid, clouds its transparency. Whether this state grew with the growth of the

disease, or subsequently took place, I must not be expected to determine. I can truly say, however, I never found any similar appearances in recent hernia; that I have rarely found them under any circumstances, and that when it exists, I am disposed to think the disease has been one of considerable duration, where a truss has never been employed, and in which the subject of the disease has undergone a slow but yet a progressive emaciation; that such a condition can exist it is important to know; caution is thus suggested, and the boldness which former phenomena might infuse into your minds, will be corrected by the lesson this preparation is calculated to teach.

Having so far explained the circumstances remarkable in the growth and subsequent changes which hernial sacs undergo, I shall examine, in the next place, the alterations observable in such parts as are usually protruded from the abdomen, and are contained within these prolongations, or growths, of peritonæum.

Although the liver, spleen, and stomach, are said to have been protruded, still such have been very uncommon occurrences; I have not met with an example, nor have I seen one in any anatomical collection to which I have had access; the authorities vouched for the fact are much too respectable to be questioned. The parts most frequently contained in hernial sacs are the ileum, the jejunum, the cœcum, and the sigmoid flexure of the colon. Before you are placed many instances of each. If you examine these preparations with care you can easily make up your mind as to the order of their liability to descent. Many will be found to contain the ileum; fewer the jejunum; and fewer still the colon. The omentum appears in a great number, and is therefore to be considered as very commonly making up a part of a hernial tumour. I cannot produce any instance where the omentum is unattended by intestine. Yet we cannot doubt that mere omental herniæ are met with; but I apprehend they are far less common than you are led to believe. Observe, the omentum is in front of the intestine, a circumstance which may have given rise to this prevalent opinion. In some of these preparations, you find the protrusion is composed of more than a foot of intestine—in others, the quantity is much less. In the former, the whole diameter of the bowel is necessarily involved; but in the case here exhibited, it is only partially engaged. You can see that were a ligature to be tightened round this knuckle-like body, the bowel would still continue pervious. Now this is a fact of importance, and we shall refer to it at a future time, for the purpose of explaining some circumstances connected with the strangulation of herniary tumours.

We are informed, by experience, when these parts frequently descend, or are for some considerable time delayed out of the abdominal cavity, that their functions are disturbed. The peristaltic motion is performed slowly, and with irregularity, while the circulation is deranged and the parts are favourably disposed to become the seat of vascular plenitude, which, in all situations, is incompatible with the performance of healthy action.

Whatever doubt may be entertained as to those aberrations of function, none can exist as to the organic changes which pathological connections cannot fail to explain. You see here a portion of intestine in a subject with large scrotal hernia; I select it as the part which the hernial tumour contained; not that I find it in the sac, for that cavity is empty, and the bowel lies in the abdomen. I am directed by certain characters—and these are made strongly apparent by the contrast between them and the parts immediately adjoining. The extent of the protruded intestine is well defined. It is narrower than the parts above it and below it—it contains no flatus—it seems contracted towards its cavity, and to the feel it is more fleshy, and it gives the idea that there is more firmness of structure—the peritonæal membrane is unchanged. The period of saccular confinement being the same, these appearances are more strikingly seen in small than in large herniæ.

These appearances are the result of slow or chronic inflammation, excited and continued by the same causes which operate in producing the alterations, or at least many of the alterations, which hernial sacs commonly display. In fact, the cellular laminæ are the seat of a new secretion; the muscular tunic is better developed, and the mucous membrane is in a state which, for want of a better term, I call a state of hypertrophy.

CLINICAL LECTURES,

DELIVERED AT THE

JERVIS-STREET HOSPITAL, DUBLIN.

By Dr. Corrigan.

Post-mortem Examination of a Case of Permanent Patency of the Aorta.

We have now the opportunity of ascertaining whether the diagnosis given of permanent patency of the aorta has been correct. The patient has died sooner than we had anticipated. The disease of the heart under which Rossiter laboured would not have ended fatally so soon, but he was seized with erysipelas, which became "erratic," or its most unmanageable form. It attacked in turn almost every part of the body, and from the exhaustion consequent on its repeated attacks, death took place.

The state of the heart is, however, at

present the most interesting to us. We look anxiously to the necrotomic examination of this case, as the certainty of the diagnostic signs of this disease has been questioned. The diagnosis was given months ago; and the post-mortem examination now is satisfactory as to the accuracy of the opinion then given, and confirms us in the dependence to be placed on the signs of the disease described in a former lecture.* The unimportant parts of the post-mortem examination we may briefly pass over. The abdominal viscera are sound, with the exception of slight softening of the mucous membrane of the small intestines and stomach. The lungs are sound in texture, but œdematous, and there is a moderate quantity of clear serous effusion in the cavities of both pleuræ. The heart is greatly enlarged, particularly the left ventricle, which is a fine specimen of active aneurism, that is, of dilatation of its cavity, with thickening of its muscular tissue. The right ventricle is similarly affected, but much less in degree; and in looking at the heart as it lies, without disturbing it, we have an explanation of the extent over which its impulse was felt. The organ, from its great size, lies across the chest, its apex far to the left, while the right and left ventricle present a large surface immediately behind the sternum and the cartilages of the ribs. In even the outward appearance of the heart there is a peculiarity of appearance which is characteristic. If we compare together a healthy heart, a heart in which there has been narrowing of the auriculo-ventricular opening, and such a heart as this now before us, the characteristic distinction of each becomes at once evident. Independent of difference in size, we can distinguish them. In the healthy heart, the apex is formed principally by the left ventricle, and is moderately sharp. In the heart where there is narrowing of the left auriculo-ventricular opening, the heart is quite blunt at its apex, which seems drawn in very much towards the base, while the right ventricle comes forward much more prominently than the left, which is shrunk in under the right ventricle. This peculiarity arises from the left ventricle growing smaller, to adapt itself to the diminished supply of blood which the narrowed opening permits to be thrown into it. The right ventricle is, however, prominent, not only relatively to the diminished left ventricle, but is absolutely so from the obstruction which it has to contend against in the congested state of the lungs, always accompanying the narrowed valvular communication of the left side. In the heart now before us, the very opposite is the relation of the two ventricles to one another. The whole of the apex, and even the heart to some distance from the apex, is composed of the fleshy mass of the left ventricle, which has become dilated and hypertrophied, while the right ventricle is much smaller and thinner than the left, and seems laid almost at right angles across the left ventricle. We shall now open the two ventricles. The right ventricle and the pulmonary artery, with its valves, are sound. The left ventricle is now opened, its cavity is greatly enlarged, and there is no narrowing of the auriculo-ventricular opening; but from the surface of the anterior of the two valves, and which should, when in action, come into perfect apposition with its fellow, there is a spherical firm projection, and about the size of half a small cherry. It is quite smooth on its surface, and covered with the serous membrane of the valve. This projection, when opened, is found to be a cyst, with very thick walls and with a very small cavity in proportion, containing serous fluid. The prominence of this cyst between the two valves was quite sufficient to prevent these valves from coming into apposition; and it is probable, that to the regurgitating blood thrown back into the left auricle at each contraction of the ventricle, was owing the bruit de soufflet which was heard behind, close to the spine; and by the irregularity of the current of blood into the ventricle, produced by the presence of the same prominence, was also produced the bruit de soufflet heard so distinctly opposite the point of impulse. We shall now pass to the most important part of all, viz. the mouth of the aorta. If water be allowed in a sufficient quantity to run down an aorta with healthy valves, the valves act so perfectly and so beautifully as immediately to intercept the stream, and not permit a drop to pass. We shall apply this test in the present instance. [The aorta was attached to the cistern pipe in the lecture room; the water flowed freely through the aorta into the ventricle, the valves not intercepting it.] It is evident, now, that the aortic valves are inadequate to their office; in other words, that the disease is "Permanent Patency of the Aorta," and that the diagnosis was correct. We may now slit up the aorta, to ascertain the state of the valves, which has left them inadequate to their office. The three valves are greatly shortened, and bound in to the sides of the aorta, by a process of disease similar to that which we see taking place in the mitral valves, in narrowing of them; that is, the free edge of the valves becomes thickened and opaque, and presses the portion of the valve between the free edge and the base. In addition to this, the valves here are reticulated, and there are firm vegetations upon them. A case, such as this, is quite sufficient to make us cultivate auscultation

* Vide Number of this Journal, Feb. 20, 1836, for the description of the disease and of its signs.

with care, where we find it enabling us to attain such accuracy of diagnosis.

Let me, in conclusion, just remind you, that the diagnostic marks of "permanent patency of the aorta" are full pulse—visible pulsation of the head and neck—bruit de soufflet in the ascending aorta, and bruit de soufflet and fremissement in the carotids and subclavians. These signs must not only coexist, but they must be permanent, with very few exceptions. Those who have objected to the accuracy of these signs, have not, perhaps, sufficiently attended to the coincident circumstances. All the signs mentioned above may be present for a short time, and yet the disease not exist. I saw a patient, lately, in whom, on my first visit, there were all the signs mentioned above, but then they were present in a person who had just gone through the most active depletory measures, and who had been labouring under hypertrophy of the heart from another cause. The hypertrophy of the heart caused visible pulsation of the larger arteries, just as increased temporary action of a healthy heart, by exercise, will cause it; while the bruit de soufflet was present in them for the same reason that it is heard in animals from which much blood has been drawn, and in persons who have been largely bled, or who have been reduced by evacuation, or debilitated. In that case, as strength returned, nothing remained but the strong bounding action of the carotids and subclavians, which is always present with a strongly acting heart. In cases, also, where there is bounding of the carotids and subclavians from any cause, particularly if connected with debility or nervousness, a very slight pressure of the edge of the stethoscope is sufficient to cause bruit de soufflet, which might be confounded with the bruit de soufflet which, when permanent in those vessels, is a sign of the disease before us. The dissection of this case also corroborates an observation made in my former lecture, viz. that bruit de soufflet, no matter how sharp in tone, gives no measure of the degree of narrowing of the auriculo-ventricular opening. I then observed, that although the bruit de soufflet was very sharp, and even musical, under the left mamma, yet the pulse being full, there could be little amount of obstruction in the auriculo-ventricular opening. The case has confirmed this observation; there was no obstruction to the flow of blood through the auriculo-ventricular opening, except the very trifling obstruction arising from the small tumour on one of the valves.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXVIII.

Variety of the Reproductive Function, according to Temperament and Habit—Hygiene relative to this Function—Procreating the Sexes at will—Means of Producing a Vigorous Population.

Individuals of a moderate size, not too large, or too small, are usually most prolific. Baron Richerand has correctly said, "large men are seldom great men," and are seldom prone to amorous pleasure.

Great varieties exist in the generative power, according to temperament, or the predominance of one system of organs over another. A few words in explanation of this position are necessary. The temperaments may be reduced to six in number.

I. The sanguine temperament, which results from the predominance of the circulatory system—the heart, arteries, &c., every organ in the body is vigorous, the sexual in common with the rest; the face is high-coloured; there is an activity in all the functions, a liveliness and gaiety, an inconstance and an infidelity in love, and a predominant inclination for the opposite sex. Persons of sandy complexion are generally of this temperament, and are in most cases libertines, unless restrained by morals and religion.

II. The nervous temperament exists when the brain and nervous system predominate. A pallidity of the skin, sparkling brilliant eyes, great sensibility of heart and mind, a rapid succession of numerous and transient sensations, and a vivid and brilliant imagination, characterise nervous persons. Such individuals are much inclined to love—are highly sensitive, irritable, forgiving, and good-natured.

III. The muscular temperament predominates in those whose flesh is abundant; and these, in general, have little desire for amorous pleasure. It has been correctly stated, "A Hercules, is seldom a Hercules in love."

IV. The bilious temperament depends on the volume and activity of the liver. The skin is brownish, the hair dark, the face pale or yellow. Ambition, or a love of study, characterises persons so constituted; and their amorous desires are moderate, in the majority of examples.

V. The melancholic temperament is an increase of the preceding. Thinness, pallidity of the skin, difficulty of digestion, lowness of spirits, dislike to society, characterise individuals of this constitution. They are not, in general, much inclined for sexual indulgence.

VI. The lymphatic temperament exists when the absorbent vessels and glands predominate, as in scrofula. The characteristics of this are, light hair, blue eyes, a great amenity of manners, a loving and open heart, a candid disposition, a greater or less distaste for physical or intellectual exertions, partial development of the sexual organs, with a feeble genital power. Some physiologists describe a genital temperament in which amorous impulse predominates, the excess of which is termed satyriasis and nymphomania; but this is not a general doctrine. An excess of tenderness and complaisance are said to characterise individuals of an erotic or amorous temperament.

Two or more of these temperaments are generally united, and a well marked one is rarely to be observed. Each temperament influences health, and predisposes to certain diseases. Those who are bilious and melancholic are generally ambitious, deceitful, imperious, irritable, and carry a jealousy to the highest degree of intensity. The sanguineous and lymphatic temperaments are often combined, and are favourable to love.

It is a general opinion among modern physiologists, that the state of mind and of body of each parent, when the spark of life is communicated to the germ in the ovule, or germ in ovary, are transmitted to the offspring; and therefore, that the mind of each parent should be entirely absorbed in the desire of perpetuating the species, at the ecstatic moment. The imagination should be fixed on the intellectual and physical perfections of each other; for if allowed to wander, the offspring may not resemble either parent, but some individual on whom the mind was fixed. Many maintain that this will happen when the imagination is fixed on a certain individual, immediately before or after conception. For this reason, unfaithful wives are said to have produced infants to their husbands exactly like them, and erotic husbands have propagated infants similar to those females on whom their imagination was placed during coition. It is therefore supposed by some physiologists, that the same power of the imagination can determine the sex of the offspring, and its moral and physical powers; and that the art of procreating the sexes vigorous infants, with genius, is far from being a chimera. There is no positive proof of this influence, in my opinion; and though it seldom happens that the imagination of the sexes is absorbed in the attributes of the offspring at the moment of its formation, it is known to every one, that persons who are most anxious to have sons or daughters are usually disappointed; and that family honours, titles, and estates, cannot be secured by the will of either husband or wife. Many earnestly desire offspring, who never have any, while others are desirous to have none, who have them.

The genital organs present differences more or less sensible in the different temperaments, and which deserve attention—as their diminutiveness or magnitude, and their degree of activity. It is well known that these organs are remarkably inert in the phlegmatic, that they enjoy a vigorous activity in the sauguineous, that the nervous are capable of great excesses in the generative function, and those of a bilious temperament possess a medium development and activity of the sexual organs. The genital organs of those of an athletic or muscular temperament are generally less developed than in other constitutions. Cabanis, in his Rapport du Physique et du Moral de l'Homme, Paris, 1805, has given numerous proofs that the genital organs in the different temperaments present different characters, and that the energy is sometimes so great as to warrant a particular temperament which he has named *genital.* Professor Halle also adduces many similar illustrations of this temperament; and it is perhaps the cause of satyriasis in man, and furor uterinus in woman. This temperament is perhaps the cause of precocious development of the sexual organs in children, many examples of which will be found in the Journ. de Médecine de MM. Corvisart, Leroux and Boyer, in the Bulletin de la Faculté de Médecine, de Paris, 1806, in the Medico-Chir. Trans., in my Manual of Obstetricy, &c. &c.

The greater or less indifference to reproduction which we remark in some men, who observe the most absolute continence, affords a striking contrast to the genital temperament. The feebleness of the virile organ is announced by the smallness of the penis, its flaccidity, the softness of the testicles, the great laxity of the scrotum, and especially by the great rarity of the phenomena which are preparatory to the act of reproduction.

It is also a fact that the genital function may be annihilated by the influence of the mind. This function is not necessary to the life of individuals, and the power of performing it may be destroyed by the mind. A word, a sigh, may instantaneously destroy the strongest erection, and render the most vigorous man impotent for the moment, and never afterwards.

This fact is attested by the experience of every adult, and admitted by all physiologists, and proves, beyond the possibility of doubt, that those who make vows of chastity, and who consider it sinful to perform the genital function, may keep such vows inviolate. In these the genital organs decay, and soon become unfit to perform the reproductive function. The illustrious Gall attested the truth of this position when he recorded, that in all the strictly chaste individuals of the Roman Catholic religion with whom he was acquainted, the genital organs were decayed and withered. M. Mestevier relates a case in his Thesis on Sterility,(Paris, 1805, p. 81), of an ecclesiastic whose organs were so diminished or atrophied, that it required several minute examinations to recognize them. (Dict des Sciences Medicales, 1824, Art. Genital). My own observation warrants me in maintaining the same conclusion. The explanation is easy. If any organ in the body be prevented from performing its function, it decays, and in time becomes useless. A similar example is afforded by the fact, that horses kept in dark stables for a long time, are affected with defective vision, and at length with total blindness. In this case the eyes are deprived of light, and prevented from performing their function, and in time they are rendered totally incapable. If other evidence were necessary, I might adduce the undisputed fact, that eunuchs, or those deprived of both testicles by surgical operations or by disease, may enjoy health for a number of years; and therefore the performance of the genital function is not indispensable to individual existence, and may, under certain circumstances, be controlled or entirely destroyed. The inference from these facts warrants the conclusion, that the genital function may be restrained or abolished without injury to life; and that the influence of the

mind, as well as physical causes, may destroy it. Thus far we may conclude with respect to those who observe a rigid continence: but it is another question whether this state be strictly consonant with the laws of nature, or more prejudicial than beneficial to the health and the prolongation of life. This question will be considered in another portion of these lectures. It is also to be remembered that the use of organs increases their development and strength. Thus, the blacksmith's right arm, and the chairman's lower extremities, are more developed than those of other men, while paralysis of the muscles, which prevents their use or exertion, causes decay or atrophy. This law of the animal economy is universal.

Every one knows that powerful and continual exertion of the mind, with which literary, scientific, and other classes of men are occupied, often cause a remarkable diminution in the venereal appetite. Nevertheless, there are numerous exceptions. Cabanis, and many other celebrated authors, have cited a great number of examples of individuals so influenced, who had become impotent prematurely, and they seldom had a large family.* The constant or habitual tension or exertion of the brain or its functions, establishes a kind of diverticulum of life from the genital organs; and Platern has also recorded many illustrations.†

A contrary disposition to the preceding is observed in those whose minds are unoccupied, and who lead an idle, luxurious life. The majority of such persons are extremely amorous. We see this exemplified in young men from the age of puberty to twenty-five or thirty years, and especially in idiots, whose genital organs are disproportionately developed, and whose amorous propensities are excessive. The conditions of life, on the contrary, which require great mental or bodily exertion, with much muscular action, as of those who follow laborious employments—diminish, and often partially or totally destroy the aptitude of the genital organs for the performance of their function; these individuals perform this function rarely, and hence they generally have large families, and vigorous infants. Hippocrates observed that riding on horseback impeded the genital function, (De Aere, aquis et locis); and Cabanis relates many cases of the Scythians, who are famed for this exercise, who had a feebleness of the genital organs. (Tom. ii. p. 209). It has also been remarked that the ancient Highlanders, as well as Negroes, and other nations whose dress did not compress the organs under consideration, were largely developed, and produced sound, healthful, and robust infants. The ancient Germans, whose laws enforced chastity and celibacy until after the adult age, were famed for vigorous offspring and an athletic population.

The habit of performing the genital function often, renders it unavoidable. It is known that this habit causes, almost automically, the baneful practice of Onanism, which even sleep cannot prevent. It also often leads young married persons into great excesses, and deprives them of offspring. It is likewise true that the excessive exercise of the genital organs, after the age of puberty to the adult period of life, augments the venereal appetite for a time, and increases their development, while rigid and prolonged chastity produces the opposite results. This first fact is often experienced by married persons, when either is suffering from severe or long-continued illness; and a correct moral feeling only can restrain it.

The moral, physical, and intellectual states of individuals have great influence on reproduction and population. They are seldom considered, however,

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* Nam licet è cœlo mittetur amica Tibullo,
Mittetur frustra deficietque Venus.

† Exhauriuntur, intenta cogitatione illi tenerrimi succi, a quibus in corpore omnis sensus, omnis vitalis, animalis imo et humana actio dependet.

by a preponderating majority of mankind, although the future happiness of individuals, of children, and of society depends upon them. This will be fully illustrated in a future lecture.

It is scarcely necessary to observe, that life and beauty are transmitted by generation; and hence the instinctive preference for an individual of fine physical beauty, of education, and a highly cultivated mind. The ancients laid great stress on personal appearance and stature. They held that individuals who were about to enter into matrimonial engagements should not be very much disproportioned—too large, or too small, &c. Richerand well observes, "Large men are seldom great men;" and this is generally the case. It is likewise maintained that those of a sanguineous temperament are most disposed to love. A strong energetic person can alone procreate vigorous offspring. The development of the body has also great influence on reproduction. Camper, Lavater, Gall, and Spurzheim, are of opinion that a large forehead is charasteristic of great intellectual power, and highly desirable in a companion. It is also well known that a large round chest is indicative of integrity of the lungs, and immunity from consumption, asthma, &c. A large abdomen is the mark of a votary to Bacchus. The lower extremities ought to be proportionally, but not excessively developed. It has been observed, that men who have large shoulders, a strong sonorous voice, a square chest, strong hard muscles, and a hairy skin, are mostly very ardent in love, and secrete sperm very abundantly. Though personal appearance has justly great influence on matrimonial unions, mind and disposition are infinitely more preferable. Beauty soon fades, and, compared with the latter, is of slight, if of any value. An enlightened mind and a good disposition are far superior to physical advantages, and nature is most wise in this determination.

Every one feels an innate pride in the performance of the generative function, as nothing terrestrial is so important as the procreation of man. The hygienic rules relative to sexual pleasure are therefore worthy of great attention and strict observance.

The generative act should not be performed when the mind or body is fatigued, or when the harmony of the functions is disordered or diminished. It is indispensably necessary, for the procreation of sound offspring, that the functions of parents should be healthful; and therefore, when the stomach is engaged in digestion, when there is hunger or thirst, intoxication, fatigue of mind or body, the reproductive function ought to be avoided, because the offspring would be enfeebled, and rendered excessively delicate. It should also be avoided during, or soon after violent passions, as anger, hatred, envy, pain, acute diseases, and certain chronic complaints.

Persons who are naturally delicate ought not to propagate a new being until they are strengthened by aliments, drinks, and tonic medicines.

Sexual intercourse must be moderate during pregnancy or utero-gestation, as in excess it is injurious to the infant and mother. It ought to be avoided after long and fatiguing journies, either by sea or land, or after travelling much on foot, or after hard labour. The effects of fatigue should be first removed by rest, aliment, &c.

Abstinence from amorous enjoyment produces a state of excitement or erethism, which increases the seminal secretion, and renders it more prolific, as there is time for its thinner parts to be absorbed from its receptacles. M. Virey, and many other naturalists, are of opinion, that nature has impressed woman, and all animals, with modesty and apparent reluctance for the male, for the better elaboration of the spermatic fluid—a fact already attested in the history of inferior mammiferous animals.

What greater incentive can there be than the sweet resistance of her who

is the object of our ardour? Nature has extended this precaution even to the whole animal kingdom. The pigeon, turtle-dove, bitch, &c. sigh for their males before they yield to their impetuosity. The last animal mentioned does not yield for a long time, and not until she has repeatedly snapped and snarled at the male. Animals, when excited by love, are agitated and restless; a secret fire consumes them; they express their sighs and wants by their cries and accents of tenderness. The time of love is also a time of strife with them; jealousy and quarrels occur, and the young and vigorous are preferred. The same feeling acts on all animals—love is the same to all.

It is remarked by Buffon and Virey, that adulterous infants, and especially those first born, almost always have more spirit and vigour than others, because more resistance and modesty were to be conquered. These, and other incentives to love, which nature dictates, increase the spermatic and ovarian secretions, on which will chiefly depend the vigour of the new being. The enjoyment of sexual commerce must be refrained from for some few days, when the object is the procreation of healthful offspring. This act is termed coition, copulation, sexual commerce, intercourse, or connexion; and a description of it is the most difficult and delicate in physiology. It has been a subject of the deepest interest to mankind, in all ages and countries; and though known to all, is understood by very few.

"When the seminal vesicles or receptacles of the spermatic fluid," says Professor Rostan, in his Lectures on Hygiene, "are distended with the sperm secreted by the testicles, which occurs in three, six, eight, or ten days, or later, from the period of puberty to the age of fifty or sixty, man has an irresistible desire to reproduce and to approach his companion. Urged by this desire, there is a general and local excitation of the whole body. The scrotum is reddened, the testicles are drawn up by the muscles over the scrotum; they become swollen, and extremely sensitive to the touch, and almost painful: the erection, indispensable to the union of the sexes, penetration, and emission, are next completed, and sometimes a limpid fluid lubricates the urethra. All women appear to us to be seducing; and if we love our wife, she appears to us to be full of attractions. Her approach makes our heart palpitate; the circulation is accelerated; the pulsation of the heart and arteries becomes more rapid; the respiration is quick, and often sighing; a general heat extends over the whole economy, over every part; the whole extent of our body is endowed with an exquisite sensibility, and her caresses appear delicious: they give rise to sensations full of pleasure. The eyes are brilliant, covered with a slight humidity, so well described by Sappho and Anacreon; and sometimes are moistened with tears; insensible to every kind of exterior excitation, they fix themselves on her who is to satisfy our desires. Similar changes occur in all the other senses; the soul is estranged from all things but the object of its affections."

Woman manifests an equal degree of excitation, but her modesty restrains her nervous and sensitive economy. "In this state," continues Mr. Rostan, "the least contact produces the effect of an electric spark, and the sacrifice is consummated. During this act, all the organic functions, the action of the heart, the pulse, respiration, sensibility of the skin, &c. are increased; the circulation is violent, the respiration is accelerated, a burning heat circulates in all the body, and often an abundant perspiration exhales upon the whole of her skin. This orgasm terminates by the ejaculation of sperm with man, and of a mucous fluid, contained in the cryptæ of the uterus and vagina.* This ejaculation is followed by a sensation of pleasure difficult to be described.

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* This is not invariably the case, though of frequent occurrence.

Cramps, convulsions, involuntary cries, ejaculations, and sometimes even epilepsy, accompany this sensation, to which succeeds a depression still full of charm. This surexcitation gives place to a feebleness so great as the enjoyment has been vivid. This generally continues for some time after copulation, and even propagates itself to the extremities of the fingers. But the scene is changed; the virile member has returned to its ordinary state of softness, the circulation gradually assumes its usual quiet state, and sometimes descends below it. The respiration is at length restored, but in a short time a long inspiration is followed by a short expiration. The eyes are dull and sunk, the eyelids are half closed, light and sound are unpleasant, the touch has lost its exaltation, and the contact of the person loved, though still voluptuous, is not so intense; a tendency to sleep is manifest, the voice is feeble, the head falls upon the chest, the arms are pendent, &c. &c."

Great differences exist in this respect, according to age and constitution. Some are animated as if with a new life, after coition; others are so depressed that they are unable to make moral or physical exertion until their powers are restored by sleep, nutritious aliment, and stimulating drinks, as wine, &c. Young persons of sound constitution often enfeeble themselves to the lowest degree by venereal excesses, and become totally impotent. I have been consulted in many cases of this description. It must be manifest from the preceding description, that excessive sexual indulgence may disorder every function in the body, injure every organ, predispose to numerous diseases, and aggravate acute and chronic maladies. Numerous illustrations of the force of this position will be given hereafter.

Among the effects which succeed the act of reproduction, there is one which deserves especial notice, though perfectly unaccountable: it is the almost insurmountable disgust which man feels, unless he really loves his companion, immediately after the completion of coition. The charming individual, who, a few minutes before, inflamed every part of his body, and possessed all the beauty and perfection of nature—for whom the greatest dangers would be encountered, and to whom a part of his vitality was communicated, suddenly loses all charms, becomes an object of cold indifference, and often of invincible repugnance. This brutal change should be impressed on the generous minds of confiding and inexperienced women, who too often sacrifice their honour to the arts of a villainous seducer. This is the cause of desertion, disgrace, and dishonour, and ought to be strongly inculcated by parents and others who have the care of girls under the adult age. It is right, however, to observe that all men are not so heartless and unprincipled; but the exceptions are few in number. A passion purely brutal influences most of them. It is very different with those whom virtue and love have united; they have no disgusts, no indifference towards the objects of their affection. But in the former examples, carnal love and cold indifference are renewed. When sleep, aliment, &c. have removed the depressing effects of sexual union, and a proper quantity of the spermatic fluid again excites amorous sensations, the train of excitement and illusions reappears; the woman once more possesses her charms, and when he has shared them, she is again treated with coldness, indifference, neglect, contempt, insult, and sometimes even with violence. Such is the fate of those who engage in illicit amours—who have confided in a deceiver and a villain. I have known many such cases, in which the depressing passions injured the health most materially, and finally destroyed life. Such is the depravity even of an age, misnamed enlightened, that similar cases are of daily occurrence; and our laws are so imperfect and absurd as to award no punish-

ment, unless a sordid and inadequate pecuniary mulct, which can only be obtained by a most expensive proceeding, placed beyond the reach of the great bulk of society.*

* The reader will find many just and severe strictures on the defects of the law in this respect, in Chitty's Treatise on Medical Jurisprudence, 1834, Part I.

On the present State of Medicine in Denmark. By C. Otto, M.D., Professor of Medicine in the University of Copenhagen.

(*Concluded from page* 905.)

III. THE DEGREE OF DOCTOR OF MEDICINE.

Whoever wishes to take the degree of M. D. at the University of Copenhagen, must necessarily, 1. be matriculated at the university and have taken the "examen philosophicum;" 2. submitted to the "examen medicum" and have obtained the first character (laudabilis); and 3. must be "Licentiate of Medicine." In order to become licentiate, he must write a medical dissertation in the Latin language, and deliver it to the medical faculty to be examined; when it is admitted to be well and scientifically written, the candidate must get it printed, together with the sentence passed upon it by the faculty, and then defend it publicly, in the Latin language, in the hall of the University, against two of the professors of the faculty appointed for this purpose, ("opponentes ordinarii,") and against any one of the auditory who may choose to question it. If the candidate defends himself in an able manner, the faculty announces it to the Royal Board of the University, which, with the King's permission, assigns the name of "Licentiatus Medicinæ" to him. Only those who are in public offices, or have acquired a celebrated name, are allowed to take the degree of Doctor before being "Licentiati;" but, if that is the case, the degree of doctor is obtained by writing once more a Latin dissertation, and doing all the above-mentioned things over again, defending the essay publicly, &c.

It is to be remarked that much stress is laid upon the taking of the degree of licentiate and doctor, and that nobody is allowed to receive them without having written a really good essay, and given proofs of solid knowledge and a true scientific spirit in the composition and defence of it. The name of a Danish Doctor of Medicine is consequently held in much greater respect than that of a German; and many of the candidates have by their inaugural essays really contributed to the progress of science. At the public defence of the dissertations, which usually lasts a whole day, the candidate is allowed an assistant ("Respondens," as he is called), who commonly is younger than the candidate, and whose name appears on the title-page of the printed dissertation.

The sum which is paid for admittance to the degrees of licentiate and doctor is a small one; being for the first twenty five dollars (2*l.* 10*s.*); for the second, seventy dollars (7*l.*) of which the Dean at the Faculty receives forty dollars (4*l.*) The greatest expenses are incurred in the printing of the dissertations; about one hundred copies of which are distributed gratuitously to all the professors of the university, to the public libraries, &c.

The degree of doctor is held in such high esteem, that a special academical meeting is appointed for the occasion, and previously to the ceremony a program is issued, written by the Professor of the Latin language at the university, and accompanied by a note of the life of the candidate. At the inauguration, the Dean of the Medical Faculty ascends the chair, and, after a Latin speech, composed for the occasion, upon one or other fitting medical subject, he confers the degree, making use of the old symbols—the *book*, the *hat*, and the *kiss*. After this, the new-made doctor ascends the rostrum, and in a Latin speech returns thanks for the honour conferred on him.

Every one bearing the degree of doctor is entitled as well to aspire to a professorship as to give public or private lectures; and, if he makes application for a public appointment, he is, *cæteris paribus*, preferred to other candidates. He has also a certain rank in the state, for which however he must pay a certain annual tax. These are all the advantages of being a doctor of medicine in Denmark. The real value of the degree is only known to literary persons acquainted with the signification of the word and the thing; for it is the custom in Denmark, or elsewhere, to call every practitioner "doctor." As has been already stated, no one can get appointed to any of the public or royal medical offices in Denmark except those who have undergone the examination of the Medical Faculty at the university, although the degree of doctor is not required. But these offices are few in number, not amounting in all to more than twenty-three. They are as follows: five professors at the university; eleven county physicians; one physician of the

Public Lunatic Asylum; two physicians of the court, (whose duty comprehends attendance on all the inferior officers and servants;) one physician of the poor in Aalberg in Jutland; one county physician in Iceland; one in the West Indies; one physician of the King. The prosector at the university, and the physician at the second hospital (the general) in Copenhagen, have both other surgical offices. The professor of midwifery and surgery at the university, J. S. Saxtorph, is also physician of the lying-in hospital; the professor of physiology, J. D. Herholdt, is the first surgeon of the navy; the professor of theraputics, C. Bang, is physician of the first hospital (Fredrik's) in Copenhagen; the professor of anatomy, F. D. Eschricht, is physician of the Foundling-Hospital; and the professsor of Pharmacology and Forensic Medicine, the writer of this, is physician of the public Penitentiary. The first and the last offices are not always united with the professorships, but the others are always so. Of medical officers not royal there are three physicians of reserve and eight assistants (called candidates) at the hospital.

IV. SCIENTIFIC ESTABLISHMENTS.

1. *The Dissecting Room and the Anatomico-Pathological Museum.* The last mentioned is a very valuable collection of anatomical, pathological, and zootomical preparations, and contains about 1400 species. For the support of this establishment, 10,000 dollars (1000*l.*) are set apart, which are a portion of 294,000 dollars, (29,000*l.*) that were left as a legacy to public establishments by a rich Jewish merchant, Amsel Meyer. Another Anatomico-pathological Museum is at the College of Surgeons; and the third at the Veterinary School.

2. *The Royal Museum of Natural History.* This was founded in the year 1796, by the union of several minor museums, and divided into two classes—zoology and mineralogy. The first consists of a collection of European birds, presented to the museum by Captain Wöldicke; a collection of African birds, presented by Mr. Hancke, Danish consul at the Cape of Good Hope; of birds from South America, &c.; and a collection of insects from the most remote period, described by the celebrated Fabricius in his work on insects, fishes, reptiles, &c. The second collection (of minerals) is extremely valuable: the minerals are from Iceland, Feroe, Greenland, Hungary, Austria, England, &c. The museum is open to the public twice in the week.

3. *The Museum of Natural History at the University.* This contains many zoophytes, insects, birds, &c., but more particularly minerals, which are used for the illustration of the lectures on mineralogy.

Besides these public museums of natural history, there are several private ones; as, for instance, one that belongs to the hereditary Prince Christian Frederik; one belonging to the apothecary Becker, &c.; but what deserves to be particularly mentioned here is a large collection of all sorts of animals belonging to a private "Society for Promoting the Knowledge of Natural History," which has been founded only three years, but consists of a very great number of members. The museum is open every Sunday to the members of the Society and their families; and once in the year, during a fortnight, to the public. On every other Sunday in the winter, a popular lecture is given alternately by Professor Eschrich, at the university; and Schouw, professor of botany, upon some subject in natural history.

Another private Society, which also has been founded lately, is that "for the Promotion of the Natural Sciences," which owes its origin to the celebrated Oersted, the greatest ornament of the university. This Society, which has done much for the natural sciences in Denmark, has an excellent museum and maintains lecturers on the natural sciences in all the Danish provinces. Every other Sunday in winter popular lectures are given to a large audience of members by Oersted or by Forchhammer, professor of mineralogy at the university, and a celebrated name in chemistry.

The writer of this Report possesses a good Phrenological Museum, consisting of natural skulls and casts, the last for the most part from Edinburgh.

4. *The Collection of Philosophical Instruments.* This belongs to the university, and is very rich and valuable: it is under the superintendence of Oersted. The veterinary college has also a small collection of instruments.

5. *The Botanical Garden.* This was founded in the year 1778, and differs in this respect from most other botanical gardens, that it is situated in the middle of the town behind the palace of Charlottenborg, (the Royal Academy of Arts.) Although it belongs to the university, it is principally supported by the king; and is undoubtedly one of the most extensive botanical gardens of Europe. The number of plants amounts to 9000, and from four to five thousand different seeds are annually sown. The garden is daily open to every student from eight to twelve, and from two to seven o'clock. To the garden belongs an excellent library, consisting of a rich store of botanical books, plants, herbaria, &c. The Manuscripts, and a Herbarium of more than 20,000 species of the late celebrated Vahl, are the treasures of the establishment. The Professor of Botany at the university is inspector of the garden: the present is the celebrated T. W. Horneman, who has published a complete catalogue of the plants of the garden, accompanied with a botanical description, entitled, "Hortus regius Botanicus Hafniensis," in two volumes, and also a

very valuable systematical description of all the plants of Denmark ("Plantelære," 1821.) The celebrated botanical work with plates, entitled "Flora Danica," also continues to be published under his inspection.

6. *Public Libraries.* Of these there are several; the following are the principal:—

The Royal Library. This was founded by King Frederick the Third, in 1665, and is supposed to be one of the first royal libraries in Europe, containing about 400,000 volumes. It consists of nine magnificent rooms. The largest of them is 260 feet in length, and contains every work of antiquity; around it is a beautiful gallery appropriated for the same use. An isolated part of it is the *Northern Library*, which has been arranged since the year 1781, and contains the whole literature of the Danish States, and very much of the Swedish. Few public libraries have a more extensive collection of manuscripts, atlases, and engravings. The engravings are from the most ancient period, and are divided into three classes. The eldest collection consists of 47,228 engravings, bound in fifty-five large volumes, which were collected in the seventeenth century, under the reign of King Christian the Fifth, and are of the greatest antiquity. A later collection, formerly belonging to Mr. Wasserschleben, Privy Counsellor to his Majesty, consists of 29,016 engravings, and is bound in 212 large volumes. According to a law passed in 1821, two copies of every book printed in the Danish States are to be delivered to the library. It is open every work-day from eleven to one o'clock, and in the reading room every one may, during these hours, read and make extracts from books; and they are also most liberally lent to any one who either is known, or procures a written security from some one who is so.

The Library of the University. This is arranged in a spacious saloon over Trinity Church, and contains about 100,000 volumes. The manuscripts, presented to this library by Arne Magnussen, are also very numerous, and illustrate the antiquity, geography, history, and language of the northern nations. Independently of this extensive bequest of books, he left to the university a considerable legacy, the interest of which is appropriated to the extension of literature. The library is also much indebted to Rasts, the late celebrated linguist, and to Dr. Wallich, at Calcutta, for a fine collection of Oriental works, which are here deposited; it is indebted to the late Count Moltke, Minister of State, for a collection of works in natural history: and to the Counsellor of State, J. H. Schou, for a large collection of books belonging to the science of law. The voluminous manuscripts of Iceland are here deposited, and are very remarkable; but the greatest curiosity is one volume in Runic characters, which is the only book of this description in existence; it contains the most ancient laws of Denmark. The old seals and letters of Norway also deserve to be mentioned, and an ancient copy of the celebrated Edda. To this library also a copy of all Danish books must be delivered gratuitously. A reading-room is attached to the library, and is open daily, from ten to two o'clock; books are also lent from this library.

The Classenian Library. This consists of 30,000 volumes, and possesses, in particular, books in mathematics, natural history, economy, geography, travels, &c. Major-general J. F. Classen, and his brother P. H. Classen, privy-counsellor to his Danish Majesty, were founders of this library. Amongst the valuable collection of books is a superb edition of botanical paintings in seventy volumes, by J. T. Herner, and which was presented by the present king, when prince-royal of Denmark. The library has a reading-room, and is open to the public four days in the week, from eleven to two o'clock, and books are lent, as in the other libraries.

The Classenian Library for the use of Medical Men. This consists only of medical books, which already amount to four thousand, and are increasing considerably every year. It is supported by a bequest of the above-mentioned brothers Classen, and by pecuniary contributions from the members of "the Classenian Society of literature for Medical Men;" among whom the books and journals that are bought circulate, before they are deposited in the library. It is open to all medical men one day in the week, from eleven to one, and books and journals are lent.

Besides these libraries, there is one at the Veterinary School, one at the Royal College of Surgeons, &c., besides many large private ones.

THE ROYAL COLLEGE OF SURGEONS, OR THE SURGICAL ACADEMY.

Surgery has, since the year 1736, had its own school in Copenhagen. It formerly was called "Theatrum Anatomico-Chirurgicum;" but, in the year 1785, the institution was considerably enlarged, and got the above name, together with a new magnificent building, which was opened in 1788. This college, more particularly in the beginning, has contributed much to the progress of surgery in Denmark. Before its institution, surgeons and barbers were one and the same thing, and, of course, no well-bred young man, or of the more respectable classes, devoted himself to surgery.

All surgical offices, military and civil, are now only filled with gentlemen who have studied and passed their examination at this college.

The college consists of three ordinary professors, one adjunct, two lecturers (one in chemistry, another in anatomy,) four teachers,

(who are called "surgeons of reserve," and are always young men, very often such as have been examined not more than two or three years before at the college,) and one candidate teacher.

The following are the names of the lecturers, and the departments taught by them respectively:—

Ordinary Professors.

C. Fenger, (the surgeon of the king,) surgery and midwifery.

C. Withusen, (now general-director of the college.) anatomy and diseases of the eyes.

A. Callisen, surgical pathology and therapeutics.

Adjunct Professor.

J. C. J. H. Gundelach-Mollor, forensic medicine and clinical surgery.

The Lecturers.

G. Scharling, chemistry.

C. L. F. Henck, anatomy.

Surgeons of Reserve.

M. Diörup, materia medica.

J. F. C. E. Starck, botany.

J. Rorby, special branches of surgery and pathology.

J. Pape, special branches of anatomy, and therapeutics.

Candidate Teacher.

J. E. Larsen, special branches of surgery.

All the lectures are public; no private ones are allowed.

It will be seen that there is abundant means provided for teaching anatomy at the college, as well as at the medical faculty of the university. Indeed, Copenhagen is one of the places where this branch of medical science may be studied with the greatest advantage, not only on account of the able teachers here, but also because the student has the greatest facility and best opportunity of dissecting, both at the faculty and at the college. In both, the dissecting rooms are open every work-day, and dead bodies are to be got at an extremely small cost. From the hospitals the dead bodies of poor persons, who either die without any relations or with relations that do not care for them, are often to be had for no more than two English shillings. The standard price at the faculty for a body is four shillings. Both institutions are, according to law, alternately and gratuitously furnished with the dead bodies of the criminals who die in the different public penitentiaries.

The same defect already noticed respecting the lectures at the medical faculty is also observable at the college. There are no lectures given on physiology, dietetics, morbid anatomy, on the diseases of the teeth, of the ears, of the mind, &c.; and very often the most important branches of surgical and medical knowledge, as, for instance, semeiotics, are left to the junior teachers, who of course want the necessary practical experience; faults which, as already mentioned, would be remedied, if the college of surgeons was united with the medical faculty.

In order to show how small the remuneration is which in Denmark is given for scientific labours, I must here also notice the salaries of the lecturers at the college. The three professors get no more than 660 dollars (60*l.*) annually; the adjunct professor fifty dollars (5*l.*;) the lecturer in chemistry four hundred dollars (40*l.*;) the four surgeons of reserve, 144 dollars (14*l.*)

To the college belong, 1. a very good Anatomical and Pathological Museum, which has an inspector, and is open to the student twice in the week in the summer, from twelve to two o'clock, at which time the inspector, Mr. Ibsen, explains the preparations; 2. a Library of Surgical and Medical books, of which Professor Callisen is librarian; and, 3. a Collection of Surgical Instruments, which, however, is as yet very small.

To enable one to study and to be examined at the college of surgeons, it is not necessary to be matriculated as "civis academicus" at the university, but the lectures are open to every one who pleases to attend them; and, when anybody wishes to be examined at the college, he petitions the professors, and delivers at the same time his *biography*, which indicates his native place, his age, parents, the school he has attended, his literary and medical education; and this must, of course, be accompanied by testimonials of having attended the lectures at the college, the hospital, and the clinics.

The candidate, when admitted, must either present to the college an anatomical preparation made by his own hand, or, instead of this, pay ten dollars, (1*l.*;) so that either nothing is paid in money or only this small sum. He must, in the first place, give written answers to a surgical, therapeutical, or medico-forensic question, in the Danish language; in the second place, he must make an anatomical dissection, (which commonly requires a whole day;) thirdly, he must examine a patient in the surgical clinic in Fredrick's Hospital; and, finally, he is examined, *viva voce*, in the Danish language, by the professors, the adjunct, and the lecturer in chemistry, during eight hours, which are distributed over three days. At the end of the examination on the third day, the candidate is called in, and is made acquainted with the particular character he has received; and, on being admitted, the following oath, in Danish, is taken by him: "After having publicly proved my medical and surgical knowledge, I do hereby promise and engage myself, with oath and hand, to the Board of the College of Surgeons, that I shall always endeavour, in my function as practitioner, to employ my art zealously for the benefit of the community and my fellow-creatures; that I will take equally scrupulous care of

the poor and the opulent, without any personal regard; strive to enlarge my knowledge, and learn and comply with the laws and ordinances that belong to my profession."

There are six general characters given at the examination, a number which certainly is too great, although in fact they are reduced to three principal ones, as every character (even the lowest,) entitles the candidate to practise medicine as well as surgery everywhere in the Danish states; but, of public offices, they can only get such as belong to the surgical department: yet these surgical offices surpass in number by far the medical ones. The royal public surgical offices amount to sixty-two military and eighty-four civil; but, of surgical offices that are not royal and very subaltern, there are ninety-four in the army and seven in the navy; besides an office for a surgeon of reserve at the second hospital in town, (the general hospital,) for one at the military high school, and offices for eight assistants ("surgical candidates") at the two hospitals. Nobody, who has only been examined at the college of surgeons, is allowed to take the degree of doctor.

The number of students at the college was formerly from 130 to 150, but this number has also increased in later years, (now it amounts to 200, fifty of which number being without any academical education;) and when it is considered that the surgical offices in Denmark are only filled by those who have been examined at the college; that these offices far surpass the medical ones in number; that the two examinations at the university (the "examen artium" and "examen philosophicum") are not required at the college; that, furthermore, nothing, or (failing an anatomical preparation) only ten dollars (1*l.*), are paid by the surgical candidates, it certainly is not to be wondered at that many more get examined at the college than at the medical faculty, and that even the greater part of those who submit themselves to the examination of the faculty previously go through the examination at the college, in order to be entitled to make application for surgical offices. The folly of having two institutions where the same branches of the art are taught, the same examinations made, (differing only so far that the Latin language is used at the one, the Danish at the other,) is evident; and, were it only on this account, a reformation of the whole medical and surgical instruction in Denmark is loudly called for.

THE MEDICAL PROFESSION IN DENMARK.

From what has been stated of the qualifications requisite for admission to the examinations at the medical faculty at the university, and at the college of surgeons, and of the extent of knowledge required at both in all the different branches of medicine and surgery, it is evident that the state has done every thing in its power to secure the aid of able and enlightened men in an art upon which depends the health and life of its subjects. Every physician and surgeon in Denmark gets an education which qualifies him to maintain the dignity of his profession, as a worthy member of a class that is generally considered as one of the most respectable and most liberal. The Danish medical men are usually held in high esteem. We have seen how much the doctor of medicine deserves respect from his scientific acquirements: and Danish physicians and surgeons are so honoured abroad, that very often Swedes come to Copenhagen in order to be treated by them. Mountebanks and quacks amongst the Danish medical men are likewise rare. This is the more to be wondered at, since the number of both physicians and surgeons is increasing greatly every year, in every part of the Danish dominions. In Copenhagen alone, with a population of 110,000, the number amounts already to 183: and that the condition, as well of those endowed with public offices as of mere private practitioners, is none of the most brilliant, will be evident from the following facts.

The salary which the state gives to those in royal public medical or surgical offices is extremely small: to the surgical, 150, 200, 400 dollars, (15*l.*, 20*l.*, 40*l.*;) to the medical, 400, 600, 900 dollars, (40*l.*, 60*l.*, 90*l.*) according to the time of service. In order to gain a livelihood for his wife and children, the officer must devote all the hours of the day to practice, which in the country is burthensome in the highest degree: the county in which his office is, being often forty English miles in circumference, and every year younger colleagues are settling in his county, who take more and more of his practice from him. Still worse is the condition of the mere practitioner without any public office: he is not, as in England, paid for every visit to the patient, but gets his fee after his recovery; or, still more commonly, he attends families as "house-physician," paying visits every time a member of the family gets sick, and receiving his fee every new year's day. This fee for the attendance of a whole year amounts usually to from 25 to 30 dollars (3*l.*); and this even from families where there are many children, and where, upon the whole, perhaps only one month of the year has been without attendance. Only very few give fifty dollars (5*l.*); and he is a *rara avis*, and falling only to the lot of the older and very celebrated physicians, who pays the exceedingly large fee of 100 dollars (12*l.*) on new year's day! For the care of a patient who is not attended by the medical men in quality of house-physician, he must think himself well paid when he gets ten or fifteen dollars (1*l.* or 1*l.* 10*s.*), and

this perhaps after an attendance of several months. Many, even of the higher classes, pay nothing at all; and on that account, like good politicians as they are, change their physician every year, or every time they become sick.

There is certainly a legal charge fixed for every visit the medical man makes, and for every recipe he writes; but such is the custom of the country, that a physician dare never ask his due, for by so doing he would be accused of sordid avarice, and be obliged to yield his patient to one or other of his many brethren, and at last lose entirely what practice he had. Only in the country the medical men who are not paid are accustomed to give in their bills, but many of their patients bitterly complain of such a mode of proceeding: and yet the charge for travelling fifteen English miles, and in this manner employing at least eight hours, is no more than five dollars, (half a crown!) The Danish physician is really, to say truth, most fortunate in this respect when one of his patients, particularly a wealthy one, dies! for he is then always requested to give in his bill for his attendance; and he may then charge the heirs with a sufficient sum without risking objections, although this now and then happens, and he is, according to law, the first paid of all the creditors.

The miserable and unjust condition of the Danish medical men in all these respects need not be pointed out. It should not be left entirely to the arbitrement of patients to pay what they please: it should be a strict legal order for the medical man to deliver his bill according to a legal charge; it would not then, as now, be thought strange and self-interested to do so; the wealthier and more gratefnl patients might still, when so minded, give *more* than the legal demand; and, from so liberal a profession as the medical, the poor certainly would not have anything to fear by such an arrangement; for who would charge them? If, according to the present system, medical men, poor themselves, are sometimes obliged to charge or receive a fee from them, would this not happen much more seldom when they received a better and sure remuneration from the more opulent? As it is, the young medical man cannot gain a livelihood by practising, and the elder ones must, by the number of patients, try to compensate for the smallness of the fees: and this is one of the reasons why the most celebrated and most able Danish practitioners, endowed with the most valuable experience, are unable to do anything towards the advancement of the science.

In order to lessen the probable want that may arise to the family of a medical man who dies in poverty, there exist two *benevolent medical societies* for the relief and support of the widows and children of deceased medical men; one in Copenhagen, another in the provinces.

An amiable trait in the character of the medical profession in Denmark is the harmony that exists between its members. It scarcely ever happens that one practitioner, from sordid motives, blames the conduct of the other at the sick bed: one never interferes with the practices of another; and, if one is called to a patient whom he supposes to be attended at the time by another, or who has his own house-physician, he never prescribes for the patient without previously having ascertained whether he is called according to the wish and the consent of his colleague, and without having consulted with him: if he is called contrary to the consent of his colleague, or without his knowledge, he refuses to prescribe at all. On the other hand, in dangerous or obstinate cases, it is very common for one physician to take another with him in consultation; and there is not one single instance on record where such consultation have not ended in the most friendly manner.

The harmony and the scientific intercourse amongst the medical men in the Danish capital are supported by two medical Societies.

1. *The Royal Medical Society.*—This was founded as early as the year 1772, and counts now amongst its members all the elder and younger literary and able physicians and surgeons in Denmark. It consists of honorary, native, ordinary, and foreign corresponding members. The present number of the native ordinary members is forty five; amongst the foreign members (sixty-two) are the following Englishmen: Mr. G. Wilkinson of Sunderland, Sir Astley Cooper of London, Dr. John Thomson and Dr. Wishart of Edinburgh, Mr. Wardrop, Mr. Howship, and Dr. Elliotson of London. The Society meets only in the winter season, and on every other Thursday, at seven o'clock. At the meetings original essays, remarkable cases, &c. are read by one or more members, and medical matters, and particularly epidemic diseases, are discussed, &c. The most scientific and friendly spirit pervades these meetings; and, although now more than sixty years have passed over the Society, its zeal for the science continues unabated. It has special laws, which have lately been revised. The Society has hitherto published seven volumes of its Transactions, ("Acta Societatis Regiæ Medicæ Hafniensis,") but the greater part of later Transactions have been published in the Danish Medical Journal, "Bibliothek for Læger," (the Physician's Library,) and (the custom of writing in Latin having ceased,) will in future continue to be so.

2. *The Philiatria.*—This is a medical Society of younger date, having existed only four

years: it consists only of the younger members of the profession in Copenhagen. It meets every Tuesday in the winter, at six o'clock, and its object is rather to discuss medical matters than to read essays, although this sometimes happens. It consists at present of thirty members.

From the existence and flourishing state of two such institutions in a town of only third rank, it may be inferred that a great love for science and literary pursuits exists in Denmark; and certainly the Danish medical man is thoroughly acquainted with the progress of medicine and the medical literature of all foreign countries. In this respect he does not yield to the medical men of any other country: and, from his necessary study of foreign languages, which are all known and spoken by well-educated Danes of the better classes, he even surpasses, in this particular, as well the English as the French and the Italians. In fact, medicine is the branch of science which has reached the highest degree of perfection in Denmark. The king's library has a rich stock of medical works, and takes in many foreign medical publications; the medical library, formerly noticed, is still richer in medicine, and subscribes to almost all the medical journals of Europe, the Italian alone excepted, which cannot be had without great difficulty. In the provinces, also, there are circulating medical libraries: and many medical men have good private libraries, and likewise subscribe to journals.

Notwithstanding this familiarity with medicine and its literature abroad, the medical men of Denmark are not prone to adopt new methods or new systems of medicine; and all the romantic and mystic hypotheses of Germany have been received with distrust, and have not been able to take root amongst us. We have never been either the first to adopt the new before it was sufficiently tried, nor the last to leave the old when its usefulness was proved beyond all question.

In their general methods of cure, the Danish medical men do not commonly use, but rather shun, heroic remedies: as true sons of Hippocrates, they follow his maxims in studying nature, and in endeavouring, in all their treatment, to obey it, and to sustain the *vires medicatrices*, not disturbing them by too active medicine. That, nevertheless, no extravagance in this respect is allowed to take place, is proved by a golden book, by the late celebrated practitioner, Dr. Ludvig Bang, entitled "Praxis Medica," written in Latin, and once a standard of medical practice in Denmark. Nor is Denmark a home for quackery, being by far much less filled with quacks than England, France, or Germany. The rights of authorised medical men are strictly secured by laws which prohibit every species of quackery and unauthorised dispensation of medicine. In order to preserve the enforcement of these laws in all their vigour, all physicians and surgeons are bound to put their name and official function on every one of their written prescriptions; and an alphabetical list of all authorised medical men and their assistants is annually distributed among the apothecaries, chemists, and druggists, who are prohibited by a heavy fine from delivering medicine to any other but those who present a prescription signed by the name of a legalised medical man; and it is incumbent upon every assistant (amanuensis) of a practitioner to take his examination within two or three years from the time of his appointment as assistant. All the provincial medical officers and the state-physician in every town must, according to law, report every year to the highest medical authority in Denmark whether any quackery has made its appearance during the year at their place of residence.

This "highest medical authority" in Denmark is the Royal Board of Health, which resides in Copenhagen, and was instituted in the year 1803. According to the royal decree, it now always must consist of ten medical members, five physicians, five surgeons, and two apothecaries. Every thing relating to medicine, surgery, and pharmacy in Denmark, medical police, medical and surgical practice, the state of the apothecaries' shops, the behaviour of midwives, &c. are under the superintendence of this board of health. Reports of epidemic diseases, of the state of health of the respective places, of remarkable cases, of unhappy accidents, of the quality of medicines that are sold by the apothecaries, of unauthorised practitioners, &c. must annually be sent to this college of health by the several county physicians, who, again, are bound to obtain like special reports from the county surgeons and the mere private practitioners in their counties. The college of health decides also upon the doubtful mental state of criminals or the accusal, and has likewise the privilege of making proposals to the king about the filling of vacant medical and surgical offices, on which account all applications for such vacant offices are first sent to it; and so great is the impartiality of the king, that he scarcely ever omits to ask the opinion of the college of health, or acts contrary to it by listening to patrons or friends of the candidates for an office. It is but justice alone to state that the college acts with the greatest impartiality, weighs the respective merits of the many candidates in doubtful cases, leaving the final decision to the king. The only objection that might be made in this respect is that too much stress is laid upon the age of the candidates for such offices. The college of health is also bound, in conjunction with the town physician, to visit the shops of the apothecaries once a year (in the

autumn), in order to examine the quality and goodness of all the medicines on sale; on which occasion also many chemical analyses are made.

The principal administration of the functions of the college of health is undertaken by a Dean, who is annually changed, and by turns chosen among the medical and surgical members of the college. The college assembles once a fortnight (every other Saturday at six o'clock,) in order to examine and decide on the cases that have been laid before it: and these, in the interim circulate among the members, all of whom, with the dean at the head, are bound to vote upon them.

It is remarkable that the members of this college, although really working hard in the fulfilling of their duties, and although having annually about six hundred different cases to decide upon, do not enjoy any pecuniary emolument or salary for their labours, the dean alone receiving, the year he is in office, 400 dollars (40*l.*), and his secretary 200 dollars (20*l.*) It is also a defect in the organization of the college of health that it cannot refer directly to the king, but that all its decisions and proposals go through the royal chancery, an arrangement that necessarily must damp the activity and the influence of the college; the chancery, although not possessing one single man acquainted with medical affairs, often deciding contrary to the opinion of the college.—*British and Foreign Medical Review.*

AN

ABSTRACT OF ORIGINAL VIEWS

ON THE

FUNCTIONS AND DISEASES

OF

THE INTESTINAL CANAL;

WITH

An Examination of such Objections as have been urged against them; and a further Report of their successful practical Application.

By James O'Beirne, M. D.

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(*Read at the Medical Section of the British Association, 14th August*, 1835).

To the Editor of the London Medical and Surgical Journal.

North Cumberland Street, Dublin,
August 3, 1836.

Sir—I shall feel obliged by your giving insertion to the accompanying letter and paper. The letter is of great length, but I hope that the importance of the subject which it treats, and the matter which it contains, will induce you to overlook this inconvenience. I should state that this paper, from its extent, and the press of other matter at the Section, was read "short," as it is called, that is to say, the introduction, the objections and answers, and the further report of the practice, were the only portions of it which were read. I have the honour to be, Sir, your obedient humble servant,

James O'Beirne, M. D.

To the Editors of the London Medico-Chirurgical Journal.

North Cumberland Street, Dublin,
August 3, 1836.

Gentlemen—The paper which I read during the meeting of the British Association in this city, with the addition of a few cases, and some observations on the ileo-cœcal valve, is now before you, and I take the liberty to particularly direct your attention to it, for two reasons: First, because it chiefly concerns a writer in your journal: Secondly, because you were pleased, in your number for October last, to single it out from all the other communications made to the medical section, and to make it the object of an attack, in which you say, "We think it rather injudicious for authors to hash up published works on such occasions as the present." How far it deserves such harsh and offensive censure, you and its other readers are now enabled to judge; and I trust that neither you nor they will have reason to quarrel with the spirit in which it is conceived and executed. I should be acting unfairly towards you, however, if I did not state that the report given of it in the Dublin Journal is most imperfect and meagre, and altogether such as to convey any thing but a correct idea of its objects.

You pique yourselves, Gentlemen, upon the stern impartiality of your views—your openness to fair remonstrance—your readiness to embrace truth, even at the expense of opinions advanced in your Journal, and I put those professions to the test. At the same time, I am fully aware that, as Editors, you are not considered responsible for the opinions of any writer in your Journal. But I contend that, whenever the opinions of any such writer are proved to be unsound, and to have exerted an injurious influence over the minds and practice of your numerous readers, it becomes your bounden duty to reject them, and to seize the earliest opportunity of doing so. I have the hour to be, Gentlemen, your obedient humble servant,

James O'Beirne, M.D.

It would be difficult, perhaps to name any modern medical work which has attracted

more general attention, or met with a more singular fate, than one published by me on this subject, early in February, 1833*. It had only been a few days published, when several of the most eminent members of the profession in this city became converts to its doctrines, and fully admitted their importance and originality. In an unusually short time from its publication, it underwent the ordeal of reviews in no less than seven English, and one of the French journals; and the opinions expressed by the different writers will be found, when taken collectively, to present a very remarkable difference as to the soundness of its views, while they appear to be unanimous as to their originality. In four of these journals the new doctrines are received in terms of the very highest approbation, and pronounced to be of the utmost value and interest, both in a theoretical and practical sense. On the other hand, in a journal deservedly of great influence and circulation, they are also received with approbation, but accompanied with so many restrictions, and with such numerous and specious objections to main points, as cannot have failed to prejudice many against their adoption. In another Quarterly, the reviewer receives them, to all appearance, most favourably, yet, without raising an objection, or assigning a reason, he concludes by saying that the work contains "much which merits praise, some things deserving censure," and that he cannot speak of it "in the same terms of unmixed commendation which have been bestowed on it by some contemporary journals." And in the two remaining journals (one of them an eminent northern Quarterly) all my views, theoretical and practical, are proclaimed to be unworthy even of the very brief notice taken of them; and their author is assailed in no very courteous or measured terms.

But this very striking discrepancy of opinion on the work is not confined to reviewers, for it has recently been just as strongly manifested by two very eminent physiologists, one of whom, Mr. Herbert Mayo†, rejects, while the other, Dr. Elliotson‡, adopts the principal theoretical propositions for which I contend. As far as I have been enabled to ascertain, also, I have the strongest reasons for believing that, although the great majority of private opinions are most favourable to my views, there are still many enlightened professional men who remain either wholly unconvinced, or wavering in their judgments on the subject. It is somewhat curious, too, that although the treatment which I have introduced has been employed most successfully, extensively, and for a number of years, by myself and others in Ireland, it does not appear, if we may judge from the extreme paucity of reports or notices on the subject, that it is either as generally known, or as often resorted to in Great Britain as it will, sooner or later, be found to deserve. Indeed, the only report on the practice extant is a very favourable one from the distant colony of the Cape of Good Hope. And as to the notices taken of it, I need only refer to the Cyclopædia of Practical Medicine, supplementary article, "Constipation," in which my practice is adverted to in very few lines, and by no means in a favourable or recommendatory manner, while in the article "Tympanites," (the only other part of the work in which it is noticed) my name and claims are altogether suppressed, and the whole merit of the treatment is transferred to Drs. Osborne and Graves of this city. Lastly, even in this country, where the practice has long had so many warm advocates, not more than two practitioners have employed it to obviate the necessity of an operation in cases of strangulated hernia; and I know of no instance in which it has been employed in dysentery, although its success is perhaps more strikingly displayed in these two diseases than in any other.

This will certainly appear a very extraordinary position for any important subject to be thrown into. Yet when we consider the force of prejudices in favour of perhaps the most ancient and universally received of all medical doctrines—the thorough reformation which my work proposes to make in those doctrines—the numbers who have never read the work itself, and only know and judge of it through the necessarily imperfect sketches contained in the reviews, the slow degrees by which even the most useful and solid discoveries have become established: when we consider all these circumstances, it will only appear surprising how such doctrines have obtained such support in so short a time. But the opposition given to them is not without its use; for, if they be really sound, the very objections raised against them should furnish the best materials for demonstrating their truth. That they will not only bear this test, but acquire irresistible weight from its application, I entertain no doubt, as every thing that I have either seen, read, or heard, on the subject has but served to impress me with the solemn conviction that they are founded both in truth and nature. To this test, then, and to the enlightened and impartial judgment of this section of the British Association I now purpose to submit them. In doing so, I feel that I am solely

* "New Views of the Process of Defecation, and their application to the Pathology and Treatment of Diseases of the Stomach, Bowels, and other Organs." Dublin.

† "Observations on Injuries and Diseases of the Rectum." p. 131, 132. Lond. 1833.

‡ Human Physiology, by John Elliotson, M.D. F.R.S. p. 118, 119. 1835.

actuated by the interests of humanity and science, and not by any personal or unworthy motive. It is not my intention, however, to confine myself merely to the refutal of objections, or the removal of prejudices. I shall endeavour to make this communication still more useful by giving an illustrative abstract of my views, and by inserting some facts and observations which were accidentally omitted to be stated in my work, and others which have been supplied by subsequent experience.

It will be recollected that the work in question proceeds upon the only basis that cannot deceive us in inquiries of the kind, namely, the application of physiology to pathology. I shall have to commence, therefore, with my physiological views of the intestinal canal, by a separate consideration of each of the portions of that canal, upon the functions of which these views differ so widely from those formerly entertained. Those portions are the ileo-cœcal valve, the sigmoid flexure of the colon, and the rectum.

Ileo-cœcal Valve.—Contrary to generally received opinions, I have shewn that the action of this valve is never reversed in health, nor in disease, except in the event of its being destroyed as a valve, either by rupture or ulceration, both of which are occurrences of extreme rarity. The grounds upon which I have supported this assertion have not been questioned by any writer. It may be fairly presumed, therefore, that my views on this important part of the intestinal canal are considered to be established. Yet I hope to be excused in here making a few observations on the subject, and briefly stating the results of some experiments which I have made, during the last two years, with a view to ascertaining the truth of the fact which constitutes the main support of these views. The fact to which I allude, is the perfect mechanical action of the valve, as evinced by the experiments of Gabriel Fallopius,* Gaspard Banhin,† Haller,‡ Portal,§ and many others, on the dead body; but which has been attempted to be much underrated by De Haen, and his correspondent, Videmar, of Milan. Instead of pumping large quantities of water or air up the rectum, as in former experiments on this point, I adopted the more simple and natural plan of pressing the whole of the gazeous and fluid contents of the colon into the cœcum, until the latter became distended almost to bursting. The termination of the ileum was then exposed to view; and, while I firmly compressed the ascending colon, an assistant embraced the distended cœcum with both hands, and compressed it with a very considerable degree of force. By proceeding thus, I found that, out of about twenty trials, there was but one in which any portion whatever of the contents, gazeous or fluid, entered the ileum; while, in another, the force applied to the cœcum was such, that its peritoneal coat peeled off, as it were, yet without forcing an entrance into the small intestines.

These results are very striking and interesting, but they are not more so than those which have been obtained by many others, particularly by Haller. They are only such, also, as might naturally have been expected, if we merely reflected on the fact, that it is by no means an uncommon occurrence to observe, that the large intestines are often found enormously distended after death, while the small preserve their ordinary size. If, then, the action of the valve is actually so perfect in the dead body, how much more perfect must it be during life, when the muscular fibres entering into its structure, add their full vital power to the admirable efficiency of its mechanical contrivance? Yet, in direct opposition to this self-evident and irresistible fact, we find that the reversibility of the valve in health and disease, is not only a doctrine as old as the discovery of the valve itself, but one which is maintained by all the successors of Fallopius to the present day, with the exceptions of De Graaf,* Morgagni,† and Portal.‡ But even these celebrated men did not detect the fallacy of the strongest argument advanced in support of this doctrine. It is that with which Banhin, as he informs us, had to contend; and which has ever since been very generally considered as unanswerable. The argument is this. At the time of the discovery of the valve, it was the received opinion, and it is still held by many, that the ingesta cannot be reduced to a fecal state, until after they have entered the large intestines: and assuming this as a fixed principle, it was inferred that the fecal matter vomited, or rather gulped up, in the disease called ileus, and in strangulated hernia, must come from the large intestines, by forcing and overcoming the ileo-cœcal valve. Such appears to have been the argument which induced Fallopius to adopt the now exploded opinion, that fluids injected per anum may be made to pass by the mouth, "in a weak and diseased state of the intestines." Such

* Human Physiology, by John Elliotson, M.D., &c. part 1st. p. 116. Lond. 1835.

† Caspar Banhinus in appendice ad Franciscum Rousetum de partu Cæsar. See also Schenckii Opera, p. 359. Francofurti, 1665.

‡ Element. Physiologiæ, tom. vii. p. 128, et seqq. Ludg. Batav. 1765.

§ Cours d'Anatomie, tom. v. p. 225. Memoirs Sur Plusieurs Maldies, tom i. p. 225. tom. ii. p. 315.

* Opera Omnia—Tractatus de Clysteribus.

† Adversaria Anatomic. 3. Animadver. 9.

‡ Locis Cetatis.

also was the reasoning which compelled Banhin to escape from its apparent force, by supposing that the valve yields and is ruptured in all cases of stercoraceous vomiting. But I have addressed myself to this argument, and endeavoured to expose its fallacy. Proceeding upon facts which scarcely admit of denial, and drawing from them conclusions which have not as yet been assailed, I have shewn, first, that whenever the alvine contents are prevented from entering the cœcum, and that they thus become detained for a much longer time than usual in the ileum, they will there become reduced to a mass closely resembling fecas: secondly, that, as a necessary consequence of this fact, it is much more natural to assume that the fecal matter vomited up, in cases of ileus, proceeds from the ileum, than to suppose it to come from the large intestines, by reversing the action or rupturing the substance of the ileo-cœcal valve; a valve which, be it remembered, is peculiar not only in being of muscular structure, but also in being more perfect in its mechanical construction and action, than any other valve in the body: thirdly, that the stercoraceous matter gulped up in cases of strangulated hernia, could not by possibility come from the large intestines, even if the valve were destroyed as such. It is only in these respects that my views of this valve can be said to possess any claims to originality; yet the more they are considered in connexion with the healthy and morbid action of the other parts of the intestinal canal, the greater will appear their importance, and the necessity of placing the matter in a proper light. I am now so fully convinced of this, that I regret extremely having treated the subject in a short note, instead of giving it a prominent place in the body of my work.

Sigmoid Flexure.—Contrary to all former views, I have shewn that, in the living body, whenever this portion of the colon is empty, its inferior half hangs into the pelvis, doubled over and to the left of the rectum; that this change in its general state and position, so long as it continues, prevents the alvine contents from disturbing the naturally contracted and impervious condition, in which, as will be seen hereafter, I have proved the rectum to be placed at all times, except during the period of excretion; that the flexure does not and cannot ascend into the left iliac fossa by any other power than that of distension; that its distension is but the natural consequence of the combined action of the ileo-cœcal valve and rectum permitting constant ingress, but neither regress nor egress of the alvine contents; and that the flexure, when fully distended, turns upon the contracted rectum as upon a fixed point, until, like the stomach, its greater arch is directed upwards and forwards, and its lesser downwards and backwards, so that the contents are brought somewhat perpendicular to, and bear directly upon, the closed entrance into the rectum.

The grounds upon which these views depend, are the following facts and inferences. In the dead body, the flexure, when empty, is always found in the pelvis, and as above described. In the living body, there are reasons for believing that such likewise is its situation for a time longer or shorter according to circumstances. Thus, after an evacuation of the bowels, the urinary bladder is also emptied, and thereby a space is left in the pelvis. At the same time, the small intestines, the cœcum, the ascending and the transverse portions of the colon, ascend with the diaphragm; whereas even a cursory view of the connexion of the flexure shews that it neither follows, nor is influenced by the upward movement of the diaphragm. Under these circumstances, the inference appears to be, that the space made in the pelvis will be occupied by the inferior portion of the flexure, seeing that the great length and freedom of its peritoneal process enable it, while the last efforts at excretion must actually force it, to take that position.

The only objection raised to this part of my views, is, "that they need confirmation by others;" in other words, that they require to be supported by facts as well as argument. This is obviously true; but I shall now state facts, in the form of a case, which appear to be conclusive on the point at issue, namely, that the flexure when empty, is, in the living body, situated in the pelvis, and as has been described. The case occurred about a fortnight after the publication of my work, and is briefly as follows.

"Mary Jones, weakly, aged 69, and of costive habit, admitted into the Richmond Surgical Hospital, late on the 10th of February 1833, with strangulated femoral hernia.—Every known means of relieving her was tried, and, amongst others, the gum elastic tube was introduced up the rectum and into the colon, but without causing an escape of flatus, or making any impression on the size, tension, or pain of the tumour, or upon the constitutional symptoms. While the instrument remained in the bowels I passed my finger along its side and distinctly felt the instrument through the thickness the parietes, and to the left of the rectum. This woman refused to submit to an operation, died on the 13th, and on a post mortem examination, it was found that the sigmoid flexure was uninjured, contained no solid or fluid feces, and very little gaz; and that its lower half hung into the pelvis in the way described. The descending colon was also empty and contracted throughout. It was embraced and firmly constricted, at its commencement, by an old organized band of coagulable

lymph; and, on the cœcal side of this band, the intestine was distended by such a mass of solid excrement, that even intestinal gaz could scarcely pass downwards. In this case we see that the sigmoid flexure could not have been otherwise than in an empty state, during life; while the circumstances attending the introduction of the tube, leave no rational doubt of this portion of the colon having occupied the same situation before, as after death."

This conclusion is inevitable, and leads directly to a practical application of the fact, which I did not originally contemplate, and which will, I am strongly disposed to believe, enable us to determine the nature of a class of cases, which we have hitherto had scarcely any means of distinguishing from others attended with the same train of symptoms. The application to which I allude, will be best put thus:—It has already been stated, that the combined action of the ileo-cœcal valve and rectum, is to maintain the small intestines, the cœcum, and the whole of the colon, in a greater or less state of fulness, if not of distension. Such is their action in the natural condition of the intestinal tube. But when any part of that tube, from the pylorus to the extremity of the descending colon, becomes obstructed by the formation of organized and strangulating membranous bands, by the occurrence of intussusception or invagination, by great morbid thickening of the parietes of an intestine, or by firm adhesions taking place between several convolutions of an intestine, and matting them together, it is manifest that the obstruction produced by any of these causes, will prevent the sigmoid flexure from being filled as usual, cause it to become flaccid, if not completely empty, and its inferior half to descend into the pelvis. It follows, therefore, that whenever we introduce the tube in cases attended with symptoms of colic, ileus, or enteritis, and find that, instead of ascending, it returns into the pelvis, and is felt through the parietes and to the left of the rectum, we are justified in assuming the existence of internal strangulation or obstruction, arising from one or more of the causes already mentioned.

MODUS OPERANDI OF MEDICINES.

To the Editor of the London Medical and Surgical Journal.

Sir—It was with much pleasure I read in last week's number of your Journal the judicious and instructive remarks of Dr. Johnson, on the action of medicines. He has clearly shown that no line of demarcation can be drawn between the physiological action of food and medicine—and, I would add, of poisons also: as, for instance, certain mushrooms containing an acrid principle, fish, divers unwholesome or putrescent substances, animal or vegetable, diseased grain, ergot, &c., will produce a crude and pernicious chyle, and contaminate the blood—producing fever, cholera, erythema, erysipelas, and various other diseases.

Dr. J. admits that the intensity of a poison may be such as to destroy life by its action on the nerves, before it could possibly be supposed to pervade the vascular system—as in poisoning by prussic acid, and as instanced in the bite of the cobra capello. But he adduces ample proofs that, in ordinary cases, poisons are taken into the blood, and are often detected in this fluid. He observes, that such are the facts adduced by Drs. Christison, Addison, and Mr. Morgan, who nevertheless support the doctrine that poisons and medicines act solely through the medium of the nerves. It appears very evident, indeed, that they are taken into and borne along with the circulation and action of the nerves and entire system, through the medium of the blood. That they thus contaminate the fluids of the body is plain to the most ordinary capacity, by the transmissibility of poisons and contagions, as in the virus of small-pox. If this last named disease acted only by nervous sympathy, how could its *semina morborum* be multiplied, and become capable of reproducing its kind, *ad infinitum*, in the matter of the pustules? Experience teaches us too, that when certain poisons, as that of a venomous serpent, becomes absorbed into the mass of blood, the most efficient means of expelling it is by the various emunctories of the body, and especially by full perspiration; and that the treatment thus inculcated by the ancients, the use of *alexipharmics*, although "now *exploded*," was more correct, and of far greater avail, than any of the affected modern improvements.

I conceive that Dr. Johnson has conceded too much to the sympathetic doctrine, or to the nervous theory of my countryman (Dr. Chapman), in admitting the mere local operation of certain remedies—"always excepting of course (he says) those medicines which act, and are intended to act locally, as purgatives," &c. I believe that the action of no internal medicine is purely local; that even the most simple purgatives and emetics operate *intermediately*—not by simply coming in contact with the coats of the stomach and intestines, but by being taken up by the absorbents and carried into the circulation. Let them be injected into the veins, and we shall find them act in the self same manner as when taken by the mouth, or even more speedily. At least, I believe this to be true; if in error, I shall feel grateful in being corrected*.

* We do not agree with Dr. H. in opinion, because the conclusions of Dr. Addison and Mr. Morgan, in 1829, have not as yet been controverted.—Ed.

Dr. Johnson considers it impossible, in the actual state of our knowledge, to comprehend the mode in which either remedies or poisons produce their effects on the body; it is certain our reigning pathology affords not the slightest glimpse of it. The matter of the note, p. 888, is important, but requires, I think, to be reconsidered. The learned author observes:—"The effects of these agents, in large and in small doses, are different. Small doses of arsenic will cure disease, and produce a train of phenomena totally different from those produced by large or poisonous doses. How, then, can we say that the modus operandi must be the same in both cases?"

I consider it to be the same, only differing in degree or intensity of operation.

"Thirty grains of calomel will purge—and do nothing else, in a great majority of cases. The same given in grain doses, at intervals of eight hours, will salivate, and affect the whole system. Is the modus operandi the same in both instances? Is not the mercury taken into the system in the latter case; and does it not act through the medium of the blood through the whole machine?"

Most certainly; and the same in both cases, I believe—differing only in degrees of force.

"In the former case, does it not act on the intestinal canal, without absorption."

Certainly not; although, owing to its purgative effect in a large dose, less is taken up by the minute absorbents and secerners, and hence, it affects the system less. It may be observed, however, that mercury and many other medicinal agents do not act proportionately to the dose. I have myself taken sixty grains of calomel by way of experiment, and have given like doses to others; and have found it thus produce scarcely greater effects, of any kind, than a fourth or fifth of that quantity would do. It appears that the absorbents are capable of taking up only a certain quantity in a given time, or that the gastric juice has a limited effect as a solvent of the calomel. Much the same is observable of carbonate of iron, which it has lately been fashionable to administer in *horse doses*, we might be tempted to say, or to the extent of two or three ounces per diem!—rather in *extremo* indeed, or anti-homœopathy.

I am, Sir,
Your obedient servant,
JOHN HANCOCK.

Monday, August 8, 1836.

NEW AND DELICIOUS ALIMENT—TOUS LES MOIS.

I HAVE been favoured with a small box of a new and very delicious aliment, by Dr. Waterson, of St. Kitts, who has also furnished me with the following account of it. This substance is the pith of the roots of the *Canna Coccinea* when eight months old. The preperation of it is more tedious and troublesome than that of arrow-root. The canna coccinea flowers every month, and this has led the French to term it, "tous les mois;" and a corrupted English translation, in popular use, is "toulemong."

"You will find," continues Dr. Waterson, "by using it in your own family, and by analysing it, that it differs most materially from arrow-root; and I consider it, as a diet for the sick, very far superior to sago, tapioca, arrow-root, and gruel. My own experience makes me satisfied, that it is a most nutritious diet, easily digestible, and is, consequently, invaluable in diets for infants and children, and is eminently adapted for persons of dysenteric, diarrhœal, and consumptive habits, because there is, in my belief, less acid in it than any other farinaceous food with which I am acquainted. I have never known it turn sour upon the stomach. It is in great demand for fever diet, thickening soups, and making puddings, as a little goes a great way. It is the ordinary food of the dyspeptic, and in enemas it is truly serviceable for allaying the effects of acrid bile on the coats of the rectum, and for sheathing them in cases of abrasion or inflammation."

Agreeably to the request of my correspondent, I have tried the tous le mois in my own family. It makes a more consistent and delicious jelly than arrow-root, and is, in my opinion, far superior to it or any other farinaceous powder used in this country as an aliment for infants, invalids, or convalescents. It is prepared like arrow-root, and about half the quantity makes a thicker jelly. I have given it to my own children, used it at my own table, and presented quantities of it to my friends. It deserves the high praise bestowed upon it by Dr. Waterson, and cannot fail to be patronized by the medical profession and the public.

It is cultivated by Mr. Olpherts, a magistrate, at St. Kitt's, and a scientific agriculturist.

It may be procured in London, from Mr. Pearce, Pedler's Acre, Lambeth.

M. RYAN, M.D.
Great Queen Street, St. James's Park,
Westminster, Aug. 9, 1836.

The London Medical
AND
Surgical Journal.
Saturday, August 13*th*, 1836.

OBJECTIONS TO MR. SMITH'S PROJECT OF SELF-SUPPORTING DISPENSARIES—EVILS OF SUCH INSTITUTIONS.

THOUGH we have not dwelt so long, or so fully on the evils of self-sup-

porting Dispensaries as some of our contemporaries, it has not been because we have not seen those evils, but because we had hoped the profession and the public generally, would have appreciated them to their proper extent; but as the system has lately been spreading with great and increasing rapidity, and as it has been made a subject of discussion at a large and respectable meeting of medical men, at which a Surgeon of Guy's Hospital presided, we shall at once enter more fully upon the subject, and state what we consider the general and great objections to a system like that advocated by Mr. Smith of Southam; for though there are various kinds of self-supporting Dispensaries, we consider them all as merely modifications of that gentleman's plan.

We are quite willing to believe, nay we never doubted the sincerity of Mr. Smith; we believe as he has stated, that he is actuated by the best motives in bringing his views before the professional public; we have no doubt that his object has been the improvement of the poor generally, and the better payment of the profession, for services rendered to the lower orders; but the best motives are not always accompanied with the best means, nor is that which appears excellent as a theory always so good in practice; on the contrary, the best motives often lead us the farthest astray, and the best looking theories are often found the very worst, when put to the test of experience. Mr. Smith's plan, an outline of which we will briefly give, has been a long time before the public in the shape of a pamphlet. He proposes that in every market-town or large village throughout the kingdom, there should be established a dispensary to which such patients only shall be admitted who cannot afford to pay in the usual manner for medical advice and drugs. The patients so admitted will be divided into three classes. The first, or free class, consisting of labourers willing to subscribe something for themselves, and who are admitted to such subscription on obtaining a proper recommendation. The second, or charity class, will consist of those persons who through misfortune have become too poor to pay any subscription, but are of good character. The third, or what Mr. Smith terms the parish paupers, will consist of such as are receiving parochial assistance—whether they be "aged or infirm persons," and therefore "legitimate" paupers, or those who have become destitute by imprudence or vice.

These three classes are to be distinguished by different coloured tickets, the first class is to have a blue ticket, the second a white one, and the third a yellow one, and the privilege which the first ticket will confer upon its possessor, will be that of being first attended to at the dispensary; this is the only distinction there will be between those patients who pay, and those who are objects of charity.

The funds of the institution are to be derived from the subscriptions of the first class, from honorary members (who will have the power of recommending the second class, according to the regulations of dispensaries in general), and certain payments from the parish for attendance on the paupers, or third class. With respect to the subscription of the members of the first class, Mr. Smith conceives that in no part of the kingdom need it exceed four shillings and four pence *per annum*, or a penny weekly, and half that sum for children under fifteen years of age; the honorary members should subscribe half-a-guinea yearly each, which will entitle them to recommend one patient; the parish should pay at the rate of 1*l.* per 100 paupers. This is a brief outline of Mr. Smith's scheme, and he conceives the advantages of it will be the saving of a great number of the industrious poor from pauperism and all its consequent train of evils, and that it would be ensuring an adequate payment to the medical men

who attend the patients of these dispensaries.

Now, we are willing to allow that in some parts of the country, probably in most of them, that the last portion of Mr. Smith's plan would be advantageous to this extent, that if a *certain* sum was paid by the guardians of the poor, for a *certain* number of pauper patients, that such arrangement would be beneficial to the poor and to the profession; to the poor by ensuring them a more proper attendance, and to the profession, in guaranteeing them a certain amount of remuneration, and not exposing them to the chicanery and baseness of low underbidding adventurers. With regard to the second class of patients, or portion of Mr. Smith's scheme, this we contend is only the present dispensary system; it is liable to the same abuses, and open in every way to the same objections; these abuses and objections have been so frequently and fully elucidated in this Journal, that it would be superfluous to mention them again. It is the first portion of of Mr. Smith's scheme, which most claims our attention, and is indeed that which is not only of importance, but of vital interest to the well-doing of the profession; and we have no hesitation in saying, that if such a plan *could* ever be carried universally into effect, that it would sap the very foundation of respectability, and ruin the prospects of at least one-half of the profession, but more particularly the younger and more necessitous members of it, those who have to look to their profession and that only for support.

It must be stated, that only such members are to be admitted into the first class of patients whose income does not exceed a certain sum. At a dispensary in London, of this description, a member having a family of four children must not be in receipt of more than 40*s.* per week, and a single man not more than 20*s.*; and these members are to pay, the first at the rate of 2*d.* per week for himself and children, and the second at 1*d.* per week for himself alone! Now, there may be facilities in villages and small towns, for ascertaining the amount of income of a working man; the larger the town the greater the difficulty of arriving at the truth on this head; and in London and other large cities, we contend that there is no possible mode by which it can be arrived at. You may ascertain, perhaps, that a workman's regular wages do not exceed two pounds per week, but how can you know the amount the wife may earn, or four children, who may be under fifteen years of age; or how will you obtain information of over-time work, of business done on the man's own account; in fact, what means have you of arriving even at the *probable* amount of a labourer's or a mechanic's receipts. We repeat it, that such is impossible; who does not, therefore, at one glance see the abuses to which the self-supporting dispensary system would give rise? Who does not see at once, that there are no limits to the kind of patients that will be admitted, at the rate of four shillings and fourpence a year for medical advice, medicines, and surgical operations. Your patients, for aught you know, may be in receipt of 500*l.* a year. Besides, we are not so convinced as many may be, that the promoters of some of the Institutions on Mr. Smith's plan, would be over scrupulous in admitting such patients, for it is not every one that establishes a dispensary of this description, that can boast of so good a character, or such purity of motive as Mr. Smith very justly can. It must be remembered too, that the patients to these dispensaries, that is, the paying patients, are appealed to on the score of *independence*—a most praiseworthy and just feeling when properly exercised and understood but fraught with the greatest danger and evil, when it is only a fancied possession. The man of really inde-

pendent mind, would scorn, if in receipt of 80*l.* per annum, to belong to a dispensary like that advocated by Mr. Smith, because he must feel, he must *know*, that he is dependent at least upon the charity of the medical man who will attend him, for the patient would not be paying him adequately, or justly, or honourably, for his time, trouble, and medicines. Patients again, who fancied that paltry subscriptions of "four and fourpence" yearly, entitled them to be considered independent of their medical attendant—we may say that such persons would have little hesitation in asserting that they did not possess 50*l.* per annum, though they might be in receipt of four times that amount. No truly independent man, we contend, would belong to a penny subscription dispensary.

It was asserted by Mr. Smith, that ruin was brought upon many, in fact, that pauperism was frequently produced, by the large amount of the "Doctor's Bill," and the assiduity with which he carried on his applications and proceedings for the recovery thereof; an assertion we believe to be totally unfounded in truth, and existing only in the benevolent imagination of Mr. Smith; for a gentleman who was present at the meeting at which this statement was made, justly observed, that it was the illness and not the doctor's bill which produced the poverty. Surely Mr. Smith does not mean to assert that patients belonging to a dispensary founded on his system, would be better attended to, than when they em-employ a practitioner in the regular and independent manner, or that their disease would be in any way shortened; then how, we beg to inquire, will the self-supporting dispensary scheme prevent poverty and all its consequences, according to the statement of Mr. Smith. Illness and disease are inevitable consequences of the imperfect state of our nature, and until that can be altered, you will never prevent them from inducing poverty and distress. We know that Mr. Smith has thus answered this question, that in his scheme the family of the diseased would be supported by friends, who would not, however, agree to pay the doctor—this he did assert. It is really so shallow, and so futile, that it need scarcely be refuted. How is it that in Hospitals, where the patient not only has every proper medical attendance, but all the necessaries which he requires, when the family are put to no expense for any of those various little luxuries which sickness justly expects, how is it, we say, in such instances, and they are numerous, and we have been witnesses to many, very many of them, that where a man has been in the receipt of more than two pounds per week previous to his admission, if his disease has been protracted, distress has come upon his family, and poverty has held the whole household in its clutches—yet here the "friends" did not withhold assistance, because they would not sanction the attendance and payment of a surgeon—and again, if Mr Smith had been in the habit of visiting Dispensaries, he would in many instances have noticed the decent mechanic, at his first application for relief, respectable in dress, and agreeing to procure such little luxuries as you may think proper to order him; probably previous to his attack having been in the receipt of good wages—not, perhaps, then a proper object for a charitable institution—but see him when he has become an "old" patient—gradually looking meaner and dirtier, and declaring his inability to procure even necessaries; and shall Mr. Smith say the case would have been worse had this man employed a surgeon whom he expected to pay? We have no hesitation in saying that it would not have been worse; the illness would not have been more protracted and the distress would not have been greater—we are certain of this, at least, that no respectable member of our profession would persecute a poor

honest man for payment of his account, when it could not be at least comfortably paid.

To the pauper class, the third class in Mr. Smith's list, it is that we see the necessity of better attendance, that is in those parishes, where the surgeon is appointed, who is the meanest, and probably the least qualified, he who shamelessly underbids all the other candidates; these are the men that are bringing disgrace on the profession, and neglecting their duties to the paupers; and these paupers are the patients who suffer from a bad system of management. Mr. Smith seemed to consider, nay we believe stated, that many of these paupers would, no doubt, join the self-supporting system; yet, in one instance at least, this was contradicted by the statement of two experienced surgeons to a large parish in London, in which there are 4,000 paupers: these gentlemen stated, that out of this large number, they believed there was not one who could afford to belong to such an institution.

It is quite clear to us, that the causes of poverty are not such as Mr. Smith would strive to make them. We are quite convinced that the profession, instead of being benefited by his plan, would, if it were carried generally into execution, be ruined; a few adventurers might, indeed, reap a temporary advantage, to the injury of the general mass of the profession. In one institution of the kind in London, and we believe the only one of importance in this metropolis, there are 1,700 members—at 1*d.* and $\frac{1}{2}$ a week—to these were appointed four surgeons, who shared the receipts amongst them. One of them had, however, even in the most prospering state of the institution, gone off to Spain, in the hope of bettering himself as an assistant surgeon, we believe, in the precarious service of the British auxiliary force. Many, we fear, who shall be so short-sighted as to connect themselves with such institutions, will be anxious to fly to a refuge less promising than that. Yes the proper way of benefiting the profession and the poor, must be sought for in a different way than the establishment of self-supporting dispensaries. Do away with the infamous system of tenure, remunerate medical practitioners properly and sufficiently, and both the poor and the profession will be satisfied. We trust that Mr. Wakley will obtain the object of his motion, of which he has given notice, and which will come on early next session, "That a select committee be appointed to inquire into the nature and effects of the measures which have been provided in the Unions and parishes of England and Wales, for supplying medical attendance and medicines to all sick persons, who may be, or may have been, entitled to receive parochial relief under the existing or any former Poor Laws." Let the members of the profession, therefore, at once proceed to employ the means of collecting such evidence as will forward this view: this is the mode in which proper redress will be obtained. In the meantime, do not let them be lulled into a belief that Mr. Smith's project will be a beneficial one. Let them lose no opportunity of shewing it in its true colours, and let them attend a meeting which will be held on the 7th of September, probably at the Parochial School Room of St. Mary, Newington, and testify their disapprobation of the measure. We may shew some further objections to Mr. Smith's plan next week.

CHAIR OF ANATOMY AND PHYSIOLOGY IN THE LONDON UNIVERSITY.

Dr. Sharpey is said to be the favourite candidate. There is, however, a rumour that Dr. Grant and Mr. Grainger are to be appointed—the one to physiology, the other to anatomy.

FURTHER REMARKS ON VACCINATION.

BY W. ELLIOT, M.D., CARLISLE.

To the Editor of the London Medical and Surgical Journal.

In a former paper on the subject of vaccination, occasion was taken to advert to two important features, real or supposed, of the vaccine disease as affecting the human species. In reference to the question of decadence of energy in the general stock of lymph, it seems right again to direct attention to the remarkable fact recorded by Brown, Greenhow, and others, that "not only is the small-pox after vaccination becoming much more frequent, but it is becoming also much more virulent: ..... and death occasionally ensues." And in so doing, the circumstance of these cases having become "more virulent" (Greenhow), or "increased in severity" (Brown), "less equivocal" (Dr. G. Gregory, Cycl. Pr. Med. iv p. 412.), seems more worthy of especial notice than that of mere increase of their number. For the inference thence deduced relates obviously to the prophylactic powers of the virus at the respective dates of the remarks, and is entirely unaffected by the considerations, that the increasing number of the vaccinated in successive years may account for a greater number of failures, and that such may, when they do occur, result from the decadence of vaccine influence in individuals, without supposing any loss of energy in the stock of virus itself. These considerations, it is clear, cannot account for an increased degree of virulence, and a greater frequency of fatal results, in the general run of cases.* The way in which Mons. Fiard was "led to the supposition that vaccine matter had degenerated by successive transmissions for a long period," and the experiments by which he verified it, are related at p. 251 of the British and Foreign Medical Quarterly Review, No. 8, July 1836.

In reference to the question of decadence of vaccine influence in individuals, which seems to be more generally and readily acquiesced in than the former, and after again urging a second vaccination in every case where the slightest deviation from the regular affection occurs (Jenner, Bateman), and an adult vaccination in all cases to counteract the effects produced on the system by the occurrence of puberty, it may be noticed that the effects of such second vaccination vary considerably. Dr. G. Gregory has (Cycl. Pr. Med. iv. 408.) described "four consequences" of this proceeding, the first of which, however, appears to be of an entirely negative kind, "the skin appearing completely insensible to the vaccine poison" in many cases, chiefly in those where only five years had elapsed from the first vaccination. Not having vaccinated at so short an interval from the first operation, when this was considered satisfactory, I can neither confirm nor dispute this account. But having in several cases vaccinated children within four or five years, the marks of whose first vaccination when a few months old seemed unsatisfactory, I have in all of them been unable to produce any effect; and have been equally disappointed on attempting the second operation in a few weeks from the first, where perhaps only one vesicle of irregular character had been produced. I should still, nevertheless, consider it a duty to adopt Jenner's precaution of a repetition of the operation in doubtful cases; and, if a careful insertion of as good virus as can be procured fail to produce any effect, as it seems in these cases generally to do, then it would appear unnecessary to repeat the operation until after the lapse of a few years. Presuming, however, that in the first instance the best procurable virus be employed, and therefore that any subsequent irregularity of effect (unless appearances be deceptive) results from causes of imperfect vaccination attaching to the subject only, it is clear that the detection and removal of such interference will be indispensable before repeating the process. The truth is, that by attending to the proper rules for vaccinating, in almost all cases the first operation with good virus will produce a regular effect. As far as I have seen, a very frequent result of the second vaccination at various dates beyond the eighth year, is different from any described by Dr. G. Gregory. It has been as follows: within even twelve or fifteen hours, a pungent, burning, and violently itching sensation is experienced in the seat of the punctures, which is elevated, and somewhat resembles the appearance following a flea-bite, but of a darker red. Sometimes a very minute vesicle, scarcely recognizable as such, forms on the summit after a day or two, but more frequently none at all: the whole fading by the fifth or sixth day, and generally disappearing within a week, but occasionally not until after ten or fifteen days, without leaving any cicatrix whatever.* In other cases the

* Nor, perhaps, for the curious fact, fully admitted by Thomson, (Edinb. Med. and Surg. Journ. xviii. 1822. p. 624. §. 15.) although the sense in which he states it is rather equivocal—that "during the first ten years of the vaccine era, there was obtained from inoculation with one or two punctures a security equal to, if not greater than, that which has since been supposed to be obtainable only by making three or four punctures."

* It is rather remarkable, that although the virus seems rarely to produce any effect within five years from the primary vaccination, its insertion, year after year in my own person, for four years, has without

vesicle has been more or less regular in its form and periods of development, but has been more or less yellow, greenish, or otherwise opaque: never, according to my humble experience, has it perfectly resembled a regular vesicle. In Dr. Gregory's third and fourth class of cases, the effects resulting from a trial of the lymph of some of these secondary vesicles, (by him reputed regular,) as sources of vaccination to others, it seems scarcely justifiable to attempt to imitate, on the grounds that virus at all impaired in its qualities imparts a proportionately imperfect degree of protection, and that a defective form of the disorder is capable of excluding a more perfect, for a considerable period.

Mr. Brown, (Edinb. Med. and Surg. Journ. 1819. pp. 68, 69) when noticing the various causes of the communication of an imperfect degree of protection, amongst which he places "weak virus," without alluding to any characters by which it may be recognized, says, "the very feeblest and most unsatisfactory phenomena make such an impression on the system, as will be found to prevent you obtaining any farther satisfaction by revaccination; and if you should inoculate, or expose them to the small-pox, they will be found to resist, at that period, both these tests." Hence the great importance of selecting virus with the most discriminating care, and the necessity of at once rejecting, as sources of subsequent vaccination, or as the medium of experiments at renovation, all vesicles whose characters are not perfectly unexceptionable. Still, as appearances are not sufficient to guide us in all cases, (see Gregory, as formerly quoted,) and as "weak virus" (Brown) may not be recognizable as such, the care just recommended, in order to transmit through a succession of subjects long-humanized lymph with as little deterioration as possible, does not seem more necessary than is another measure for affording us the means, perhaps, not of communicating "perfect and permanent security," but, at all events, of imparting much more protection than it is now in our power to do. Nay, it may not be going too far to say, that by the adoption of that other measure, followed up by occasional revaccination in after-life, perhaps every human being submitted to the treatment might be kept, throughout, impregnable to small-pox. I allude to the occasional renewal, at brief intervals, of our supply from the cow, (or perhaps the horse*.)

On this Mr. Brown says, "but even allowing that it were possible to obtain perfect security, by receiving the disease from the cow, I apprehend no one will ever contend the practice can be carried into effect, if we are under the necessity of becoming milkers in the county of Gloucester." No one surely will thus contend: but may it not be reasonably insisted on, that an occasional renewal of the virus, so as to maintain a general vaccination of equal value with that which obtained during the first few years of the vaccine era, would afford a much greater chance of security to the vaccinated, than is given by long-humanized lymph? For a few years prior to 1818, the again increasing devastations of small-pox in Wirtemberg, (where vaccination had been carelessly performed, and a bad supply of lymph existed) contrasted with the comparative security enjoyed by neighbouring states, aroused the authorities of that small kingdom to devise means for the more complete protection of their subjects. (See Life of Jenner, p. 270). One regulation adopted, was, "that fresh ichor should be obtained annually from the cow;" and another, that children should thereafter be vaccinated from arm to arm, (i. e. not from dried virus.) The result it would be gratifying to learn: in the mean time, is not the case pretty generally applicable, and the measures adopted worthy of general imitation? Revaccination in adult life is negatively commended by Dr. G. Gregory, as being "simple and free from risk *." Recurrence to the original virus offers the same advantages. Again, the former, it is said, "may reasonably be considered as renewing the security of the individual." The latter is equally likely to be the occasion of renewed security to the community.

The greatest difficulty is experienced in warm countries in keeping up a supply of good virus from human subjects alone (and generally, the "number and severity" of cases of small-pox after vaccination have, as above stated, been on the increase,) but fortunately in most of these the original disease has been discovered and made available, with the most promising results: as in

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difficulty or variation produced the above effects.

* Dr. Loy, who incontestably proved, amongst others, the accuracy of Jenner's view, that the affection is derivable from the horse, (though not exclusively so, as he maintained,) concludes, nevertheless, that there are two kinds of grease; and that it is that kind only, which involves a general as well as a local disease, that is to be used while the ichor is quite limpid. Some, I believe, have found the efficacious virus of greasy horses to reside not so certainly in the greasy sores, as in minute vesicles at the roots of the neighbouring hairs. Dr. Loy thought it indifferent, whether this virus were communicated directly to man, or through the medium of the cow.

* For an interesting account of the good effects of this measure in the Prussian army in 1834, see British and Foreign Medical Quarterly Review, July, 1836.

South America, in the East Indies, the German States, and in Italy. That feature of the cow-pox in warm climates distinguishes it strikingly from certain human contagions to which it has pleased some to make it analogous, on the ground chiefly of its ready transmissibility in our species; which, while altogether strange and without a parallel, still cannot set aside the argument resting on the consideration, that to man it is entirely foreign. Thus, in the countries alluded to, small-pox rages with awful severity, if unchecked, where and when the humanized vaccine disease can scarcely be propagated. Again, admitting the position of some, that the acknowledged deteriorations of cow-pox do not destroy that analogy, for that there exist various forms of small-pox and of syphilis, the unanswerable argument remains, that irregular forms of small-pox, as horn-pox, swine-pox, nay, even the modified forms of it after vaccination, can communicate to the unprotected the most virulent forms of the disease: and it is now established, that secondary syphilis will produce its original in all its severity. But irregular forms of cow-pox actually and unfortunately "propagate their like." (Brown, loc. cit. Jenner, Med. and Phys. Journ. 1804, p. 99, also Life, by Baron, p. 285.) Dr. G. Gregory, however, countenances the notion (op. cit. p. 413) "that the pock may be restored from an imperfect to a perfect state." The impropriety of making the attempt has been already adverted to.

There seems little reason to doubt, that within our own shores a gradual decline in the influence of cow-pox has been and is occurring, (see Greenhow and others, also a conclusion of Goldron's Med. and Phys. Journ. 1804, p. 85.), though certainly in a much less rapid and striking way than in the warm countries just alluded to. Hence, the possibility of a comparatively enfeebled state of the various stocks of lymph in use throughout the kingdom, is seldom thought of, and if it be, is either sternly denied, unwillingly allowed, or admitted with indifference. But surely, instead of either being discouraged by such statements as those of Mr. Brown (op. cit. p. 68,) or contemplating the "increasing virulence" of modified small-pox without an effort, it would be well to aim at, as indeed we might most legitimately expect, at least a more abundant if not a complete measure of success, from the adoption of the proceedings already recommended.

Having said thus much, in addition to what was formerly advanced, on two questions of perhaps the first importance in relation to vaccination, it remains for me to advert briefly to the performance of the operation, and to noti e certain differences of opinion amongst, as well as a few self-inconsistencies of, various authors of standing, on other matters connected therewith. The operation may be effectually performed in various ways, some account of which, and of the reasons for adopting them, will be found in the evidence given to the Parliamentary Committee. Mr. Bryce's work on the cow-pox, at part 9th of the Appendix, may also be referred to, for a method adopted by himself and Abercrombie, which answers well when the supply of lymph is very copious, as it involves the necessity of a considerable quantity for the production of one vesicle. The form of operation with the common lancet which I have found most certainly successful, is the following: Having by two or three nearly horizontal punctures into the vesicle obtained a standing drop of lymph, and armed the lancet point therewith on both sides, the skin of the patient's arm is made tense, and the instrument entered to the extent of one-sixteenth, or in cases of less vascular skin, one-twelfth of an inch, beneath the cuticle, and with so slight an obliquity as merely to cause its intrusion into the external portion of the cutis vera. A small triangular cavity is thus formed, but into it the lymph is very rarely introduced by any step of the operation as yet alluded to, being wiped off so much of the instrument as may have penetrated, especially where the epidermis is fine, and the edges of the wound definite. The lymph at this stage may often be seen pushed back toward the shoulder of the lancet. This is now withdrawn a hair's breadth, to allow of the subsequent proceeding without adding to the specific irritation of the virus any common irritation, so injurious to the vaccine process. Keeping the point still in the wound, the blade is made to perform one fourth of a revolution on its long axis, and the handle a little raised. The virus is thus made (and may be seen) to descend into the puncture. After a second or two the lancet is moved another fourth of the way round, when of course it again lies flat in the wound, on which the left thumb is gently pressed during its withdrawal. This operation is as easily and quickly performed as the ordinary form of puncture.

The number of punctures to be made is by no means, in my opinion, a matter of indifference; from three to six appearing requisite, both to increase the chance of infection, to ensure a tolerably perfect form of the disease, to allow of the unobjectionable performance of Bryce's test operation, if thought advisable, and to afford a good supply in turn. Mr. Moore, in his evidence before the Vaccine Committee, Q. 1983, &c. deprecates the practice of developing only one vesicle, on the second of the four grounds just adduced; yet Dr. Thomson denies the necessity of a greater number for an effectual communication of the disease: (see Ed. Med. and Surg. Journ. of 1820, p. 237.) The reviewer coincides with him. This

declaration seems not altogether consistent with an admission of Dr. Thomson's quoted in the first note, since, according to the former, he should not allow any difference between "one or two" and "three or four." Mr. Moore expressed a decided opinion to the effect, that many cases of subsequent seizure by small-pox were owing to the circumstance of only one vesicle having been produced, (Parl. Ev. Q. 1936); and on that opinion being expressed to the National Vaccine Board, some years ago, it directed four vesicles to be raised in every case, of which two were not to be opened, &c. Yet, in Answer 1987, Mr. Moore says, "I think, in general, one well-formed vesicle, not broken, will, in most cases, secure the patient; but cases of failure have occurred where one only was made." But in Answer 1992, again, he says, in reference to an individual case, "The truth is, if the cicatrix had been perfect, and a single cicatrix, he would not have been secure." Dr. G. Gregory (Cycl. Pr. Med. iv. p 413) says, "no reliance whatever can be placed on the notion, that would connect the security of the individual with the number of maturating vesicles." To this may be opposed the experience and views of Moore, as given in his Answers 1986 and 1992, although, almost with the same breath, so unaccountably, and seemingly without reason, partially invalidated by himself; also the consideration, apparently relevant, that in small pox the constitutional affection, secondary fever, and danger, correspond to the amount of eruption; and lastly, that there are other reasons rendering a greater number of vesicles desirable. Mr. Brown (op. cit. p. 71,) states, as his objection to Bryce's test operation, the frequency with which "the first vesicle" is thereby injured. He, therefore, probably was in the habit of making only one puncture: how easily, then, might his objection have been obviated by having a more abundant crop of vesicles in the first instance. The possibility, however, of injury to the first vesicle in any way, should induce us to insert more virus at first; and it may be a question whether the occurrence of only a single vesicle, as will sometimes be the case, should not rather be a ground of performing, than of declining Bryce's operation (either with lymph from that vesicle, or, still better, from a satisfactory extraneous source), for the purpose of producing a more complete infection. The operation may possibly have been as useful in the latter way as in that pointed out by its inventor, and with that view has occasionally been performed by me, though I believe it expedient for both purposes. That of Bryce himself, however, was to prove the occurrence of not simply a constitutional affection, but of the constitutional affection of cow-pox, and thus, as he thought, to secure a perfect form of the disease, in short, perfect and permanent security (Bryce, 2d ed. p. 150). But because this was not afforded, and probably is imparted by few single infections of cow-pox with certainty under any circumstances, the necessity of testing the presence of any constitutional affection, nay, the necessity of the constitutional affection itself, has been disputed, notwithstanding the very general impression in its favour. Thus, Dr. Geo. Gregory (op. cit. p. 408) rejects Bryce's test as "nugatory") because "it does not ensure the stability of the vaccine process in after life." and "does not show whether the constitutional effect has been complete or otherwise") i. e. does not shew the amount of it! But what other device shews, that not a mere irritative effect is produced on the system at large, but a specific constitutional affection*, reacting on the local disorder, and in all probability of the utmost importance whether as a medium or a sign of the satisfactory communictaion of the vaccine disease? And why make its exact degree a postulate, or, failing to detect and determine that degree, why reject the measure as nugatory?

(*To be continued.*)

BOOKS.

Flora Domestica; or, History of Medical Plants Indigenous to Great Britain. Illustrated with Coloured Figures. By Benjamin H. Barton, F.L.S. E. Cox, Borough. Parts I to 4, May to August.

This work is well executed, and will be acceptable to the general, as well as the medical reader.

The Anatomist's Instructor, and Museum Companion; being Practical Directions for the Formation and Subsequent Management of Anatomical Museums. By Frederick John Knox, Surgeon. 12mo, pp. 145. Edinburgh, Black: London, Longman & Co.

An exceedingly useful work for pathologists, and those forming museums.

On the Efficacy of Carbonic Acid Gas in the Diseases of Tropical Climates, with Directions for the Treatment of Dysentery. By John Parkin, Surgeon, &c. 8vo. pp. 64. London, Allen & Co. and Highley.

* It is necessary to insist on this distinction, as no doubt many compound, or reckon identical, ordinary constitutional irritation and this specific affection. The latter may either co-exist with a common sympathetic febrile affection, or exist alone, and offer no means of recognition save by Bryce's test of simultaneous maturation of vesicles from virus inserted at certain different dates. (See Jenner's Life, p. 246, Bryce, 2nd ed. p. 195, and Appendix, p. 115.) The variolous constitutional affection differs again, and excludes the vaccine.

THE

London Medical and Surgical Journal.

No. 30. SATURDAY, AUGUST 20. Vol. I.—(1836).

THE LAST

ORAL LECTURES ON HERNIA,

Delivered at the School of Surgery, Peter-street.

By John Kirby, LL. D.,
Late President and Professor of the Practice of Medicine of the Royal College of Surgeons, Dublin, &c. &c.

LECTURE II.

Pathology of Hernia (continued).

The peritonæum which covers the protruded intestine is not always exempt from change, although it seems, in many instances, to resist it for a longer period than the other parts which enter into lobular structure.

You have here several preparations explanatory of what I mean. In this, the protruded loops are intimately adherent to each other; it seems as if they were joined by what is called union by the first intention—their parietes are incorporated—the medium of their junction is cellular membrane—we can follow it with the knife—and we can make it visible by inflation in some instances, and by maceration in others.

Here is a union not so different in its kind as it is in its appearance; the connexion is maintained by bands, varying in width and length; they are separate from each other, and healthy peritonæum occupied the interstices of their attachment.

This phial contains an example of an union between the intestine and the sac, except in that particular it is like the former preparation; I have no specimen of a more intimate or more general adhesion between these parts, nor have I ever met with one amongst all the hernial subjects I have seen. All these adhesions add much to the complication of this disease; they preserve irreducibility; they perpetuate risk of life; they obscure the seat of strangulation, and they embarrass our operations. Now, my object is rather to present them to you as things which you are to expect to find in the living, because you see them in the dead. I shall, at a future day, find occasion to refer to them, and then they will interest you much more than, I presume, they can at this moment.

The omentum, which you have seen in such a variety of these preparations, will, if you review them, be found to give evidence of its participations in many of the changes I have described. In some it is exceedingly loaded with fat; in others it is increased in extent; in others, again, it is formed into a knotted mass. In a fourth preparation, it shows long and fatty fringes; in a fifth, it is a long and slender cord; in a sixth, it seems granular, pale, contracted, and firm; in a seventh, it is gathered into a rounded mass; in the eighth, and many others which I hold before you, you have most instructive examples of the various situations it holds with respect to the intestine. It simply rests on the surface of one of the protrusions; it lies at the back in another; it is in a manner coiled round the intestines in a third, and in this, for which I am indebted to Mr. Wright, of Ship-street, both the contents are so interwoven, that inspection must teach what description would certainly confuse.

By the adhesions seen here, rings are found; and these, sometimes, are the cause of stricture within a sac. I now put into your hands a preparation of serious value. The protruded part seems to be nothing but omentum. A black bristle points to a small space, and there, at a great distance from the surface, surrounded by omental fat, you see a small portion of intestine. Hence we read an important lesson; we see how intestine may be concealed; we see how an operation may become fruitless; we have cautions which it would be otherwise difficult to understand; and we derive rules of practice which could not otherwise be established. In three cases, I have seen the omentum adherent to the neck of the sac, passing across it as a septum and dividing it into apertures.

In one of these cases, the intestine which had escaped behind, was strangulated, and it became necessary to divide the omental bands, for the purpose of effecting its return. This circumstance occurred in my own practice. I dilated the usual seat of stric-

ture, yet I could not replace the hernial contents; further examination pointed out the seat of the impediment, the precise nature of which I did not at first understand. The patient died. After examination explained the connexion which the omentum had in the disease. It may be well to add, that there was not the slightest trace of hemorrhage. In the other instance, the omentum was but adherent to one portion of the neck of the sac. In this it was formed into a tense cord of a firm nature; the intestine passed behind it, and was converted into a strangulated condition within the adherence. The usual operation was performed—the parts were returned, but were not to be restrained from again descending; the symptoms of strangulation continued, the patient died, and the true nature of the difficulty was not understood until the autopsy was performed.

In the numerous references made in these preparations—and they have been so often submitted to your inspection you must have remarked the various degrees of adhesion existing between the omentum and the hernial sac. You can thus estimate the degree in which they oppose reduction, and the difficulties which they are calculated to present in surgical operations.

Whatever the protruding viscera happen to be, whether jejunum, ileum, colon, or omentum, and through whatever aperture these escape, they send before them the peritonæum which forms the immediate sac in which these intestines are contained. In proportion as it enlarges it approaches a flask-like form. It is narrow wherever it leaves the abdomen, and increases in diameter in proportion to its distance from the orifice of descent.

As long as the viscera are contained in such a pouch, produced by a cause gradual in its operation, we may view them as lodged in a situation not wholly preternatural. Digestion goes on pretty well; peristaltic motion is not inconveniently interrupted, and indeed, if inflammation does not take place, little change in the functions of the intestinal canal can be remarked, notwithstanding the loss of abdominal pressure, the want of the usual motions to which the viscera are naturally subjected, and the change in the depth of coverings, to which all common hernial protrusions are sure to be exposed.

This power of accommodation to new circumstances is truly surprising, but our admiration of the provisions which nature can draw on in certain cases, will be much heightened when we take a farther view of other alterations to which the contents of hernial sacs are frequently subjected.

You understand the mesentery and mesocolon to be duplicatures of peritonæum.

Between these laminæ are contained adeps, glands of the lacteal system, with numerous vessels and nerves. Now, when these duplicatures of peritonæum are for a long time protruded, and from their undefended condition exposed to renewed and continued pressure, they grow into firmness and fleshiness; there is adipose deposition the vessels become more capacious, they lengthen out and then afford an evidence more of absolute growth than of mechanical alteration.

The mensentery now unfolded and displayed, maintains all its natural abdominal relations; yet, you observe, it reaches nearly to the bottom of a hernia of almost incredible magnitude, and without any forced extension may be stretched to the patellæ.

Well, gentlemen, I say, this cannot be explained on the principle of mere mechanical distension; this extraordinary appearance must depend on growth. Let us look into the cavity now nearly deserted by all the loosely moving viscera. The fixed organs hold their natural relations; the peritonæum adheres, though not with a natural closeness, to all its natural boundaries; its character is that of healthy structure except in such parts as are more immediately concerned in the protrusion. Were this a subject of mere curious speculation, I surely would not occupy your attention with the matter. It is one of much importance and these reflections are well calculated to exercise no inconsiderable influence over many of our decisions, and over proceedings which are essentially of a practical nature.

There are other changes which these parts undergo—they may be briefly expressed for you cannot have forgotten the various preparations I exhibited, illustrative of the pathological condition of hernial sacs. In fact, as far as the peritonæum is concerned the structure is similar, and you will therefore find, where the causes are the same that the consequences do not differ.

But we must pass from this membrane. We must consider the intestine which it suspends and embraces. Let us remove its serous investment; let us perform a similar dissection in a part which has never descended from its proper cavity. This is done—the parts contracted belong to the ileum. Here in the hernial portion, the muscular fibres are more easily traced—they appear thicker and firmer. Such a change in muscular fibre is common whenever an unusual demand is made upon its action. The examples are numerous, and they crowd upon my mind. I select one which will speak to you impressively. You all know how difficult it is to trace the fibres of the cremastic muscle. So faint have been its fibres, as exhibited in some of my daily demonstrations, that I have been obliged to draw upon your confidence. That which was often invisible to you, or nearly so, is in this preparation beautifully and interestingly displayed.

Here the packets of fibres are of the colour

of muscle: they are separated by cellular interstices. Many are as large as crow quills. The abdominal attachment is preserved: the scrotal termination is clearly seen, and the appearance so entirely corresponds with the description I have often given to you, and with that which the usual books contain, that I am sure you cannot feel a doubt of that on which you now look being the cremaster muscle.

These changes in the development of the muscular fibres, so necessary to supply the place of that form which the intestine loses by its removal from the abdomen, is not the only circumstance to which your attention is to be directed. Compare the ideas you receive by handling both these portions. This was for a long time in the sac—has more fulness—more fleshiness. This is not to be attributed solely to what you have seen. The mucous membrane has been a positive feature in all that has taken place. We now separate it, and we compare it, and the examination justifies my conclusion. You naturally will inquire about the object of these observations. I am always happy to explain myself with the best power I can command.

Where a hernia takes place suddenly, as it is said when the disease first attracts attention, both the sac and its contents are in a state of healthy structure. But suppose the hernia be neglected, and be allowed to remain in the situation in which we find it, then the sac undergoes those changes described in a former lecture, and the contents are more or less affected, as I have, in the present discourse, stated them to be. The evidences you have here, afford an undeniable proof of the fact. The deviations from what is natural take place slowly: the progress is imperceptible; we can neither pronounce as to the time of their occurrence, nor as to the extent to which they have reached. Yet we are assured, by an experience derived from such sources as are here, that they positively occur.

Hernia, in its simplest state, is almost always to be considered with reference to the inconvenience it may produce, and the dangers to which it may expose. In many situations it gives rise to unseemly deformity. It often disturbs health. It interferes with the comforts, pursuits, and active duties of life; and it may even set human existence at a risk. Consequently, the very mildest cases you will meet with, demand attention; and I wish you to retain the conviction, that whoever is the subject of the disease can never be regarded as a person in a state of full security.

This view of the matter strongly exhibits the importance to be attached to such means as may lead to an early detection of the malady; for if it be seen in its incipient condition, much, under certain circumstances, may be promised in the way of effective cure, which, when the hernia is confirmed into more advanced development, experience generally assures us, is not only attempted in vain, but is oftentimes insecured, either through ignorance, or, what is still more culpable, an improper motive.

Advice is seldom required until a swelling attracts the attention of the patient. Topical uneasiness often directs the hand to an affected part. But sometimes it happens the tumour is the first thing perceived, and pre-existing local sensations are referred to only when we bring them to the mind; and they are then noticed as matters which were always disregarded. Many symptoms not uncommonly referred to dyspepsia, that absorbing class of all anomalous diseases, frequently depend—at least such is my firm belief—on the nascent form of their disease. The conviction I feel upon this subject, came, I may say insensibly upon me, for I had scarcely reflected upon what I was about when I began to observe that my examinations and inquiries in occult cases of digestive derangement were very constantly directed to this very point. Retracing what I shall call a habit to the source in which it originated, I was led back to the following incident. A barrister, an aged, sedentary, and anxious man, applied for my advice in consequence of a presumed "gravelly affection of his kidneys." He stated his case with his own professional accuracy; and the evidence he adduced in support of the opinion he expressed was as follows. In the first place, he had been, during several months, treated by his family physician for a calculous disorder, which, with very few intermissions, had resisted the remedies he was directed to employ. In the second place, his urine was almost constantly disturbed, and usually deposited the brick-dust-like sediment. He frequently experienced an uneasiness in the right lumbar region, extending in the course of the spermatic cord, and the issue of which, from the abdominal parietes, he felt to be particularly severe. He was often troubled with griping, flatulency, sickness at the stomach, diffused tenderness of the abdomen, and irregularity of the bowels. This gentleman was a reader on medical subjects, and therefrom you can well suppose his inquiry to be mainly engaged about his own complaint. Examining him as he stood naked before me, I thought I discerned a partial fulness near the point to which he principally referred. Suspicion of hernia then arose, and manual examination confirmed the certainty of its existence. A proper truss was applied; the symptoms quickly disappeared, and did not return as long as the instrument continued to be worn. Found to be inconvenient, and presumed to be unnecessary, it was in a few months laid aside. The old symptoms were gradually renewed. The truss was resumed.

They once more yielded to this simple and only remedy, and they never again revisited the patient.

A person who, many years ago, first consulted me on account of a prostatic affection, became afterwards a frequent visitant at my house, in consequence of a stomach derangement, accompanied with sensations of considerable discomfort. Irregularity of appetite and bowels, uneasiness after meals, flatulency, acidity, sedimentous urine, and slight ardor, were his most prominent complaints. My last devised instructions, which, for the space of many weeks he most punctually obeyed, affording no relief, he one day tauntingly observed, at the same time stripping and pointing to a spot at some distance above the navel, "I tell you what, sir, there is something here you have not come at the root of yet." Now, my patient was a little squat, corpulent, punch-bellied fellow. When I had duly, and as I thought, to his great satisfaction, thumbed his corpulency, without, however, being a whit the wiser for having done so, my friend gave utterance to a most emphatic and embarassing "Well." I candidly told him I had not acquired any new information. He was surprised at this announcement, and rejoined, "I tell you there is positively something here; and can't you as well put your finger on this spot?" I now saw my way: a truss was adjusted to the part, and while it held its proper situation, my patient remained exempt from the causes of his incessant complaint.

Mr. M—, who had been a long time an ailing man, and who had advice from sundry intelligent sources, applied to me for relief from a state of stomach and bowels by which he had been troubled for several months. His appetite was impaired. Digestion was slow, and performed with many inconvenient, rather than painful sensations. Flatulency, and cholic-like uneasiness, sometimes distressed him. His bowels were at one time constipated, and at another time he was teazed with diarrhœa. His countenance was sallow, and his temper peevish. His easiest moments were passed in bed, where, if his avocations permitted him to remain, he would be disposed to continue, in consequence of the respite he enjoyed by the indulgence. When I inquired about local pain, he directed me to the iliac region, where I soon perceived a preternatural fulness, about the nature of which there could not be a doubt. A double truss was applied, and in a few days its utility was displayed by a perfect cessation of all the symptoms.

To these narrations numerous others might readily be added; but holding these to be sufficient to my purpose, I refrain from crowding you with other particulars, lest I might fatigue attention, and thus make abortive my wish for your instruction.

Whatever question may be entertained as to the proper estimate to be formed of these observations, I think no one will hesitate to acknowledge the value of an early perception of the commencement of all forms of hernia, with a view to the cure of the disease. When its presence is early detected, especially in young persons, I am persuaded it is more easily and more commonly remediable, than it is usually thought to be. In an opposite condition, we can expect to do no more than to restrain increase, and to obviate, in some measure, the danger to which the malady is liable: and yet, amidst all that is unpromising in years, growth, and duration, I have known a steady and continued observance of rules soon to be pronounced, lead to an issue more fortunate than we dare to hope for, where so much, unpropitious to such an event, appeared in combination against it.

Whenever digestive derangement and symptoms, its attendants, which you gather from the cases lately adverted to, induce you to suspect an incipient attack of hernia, every region, the seat of any particular uneasy sensation, I advise to be examined, according to the plan which my best judgment recommends to be pursued. An erect posture, the lower limbs being moderately separate, the arms extended above the head, and the palms firmly applied to each other, in the attitude most convenient for the purpose of inspection. In this way the abdomen is well prepared for examination, and the eye and touch will speedily discover any existing partial deviation from the natural form. In viewing the situation in which hernia usually appears, our sharp attention is thus to be directed. Over any preternatural prominence, the hand should be flatly, and with an equable firmness disposed. The impulse produced by laughing, is now to be required; the hand measures the equality or inequality of the force; and if that strikes strongly from a suspected point, I think we may justly conclude, that partial debility prevails. This inference, however, is to be tested during recumbency, while the muscles of the abdomen are alternately placed in a state of tension and relaxation. The patient is again to rise on his feet, when the first examination is to be repeated, and the conclusion is to be farther assayed by a particular exploration with the finger. If rupture be thus ascertained, you will allow me once more to say, it is our business to proceed with a curative intention. Now, that you may rightly understand all you are about, I shall dwell for a few moments on the indications which should be before your minds, the manner in which they are to be fulfilled, and on those agencies of nature without whose benign assistance, not only common efforts fail, but the highest contrivance of human intelligence must for ever be set at nought.

Indications of Treatment.

The first indication is answered by returning the parts displaced, and by adopting means by which they may be permanently retained in the abdomen. Replacement is effected by position and by the hand; retention is accomplished by the instrument called a truss. On the proper application of this piece of surgical mechanism, almost every thing depends. Whether in some cases there shall be cure or no cure; whether in others there shall be relief, security, or danger; all hang upon its just adaptation, and the undeviating perseverance with which it is employed. It is strange, how inconsistently men act, both surgeons and patients, in a business of such real moment. Advise to persevere—a truss is given to the afflicted, but the cautions are rarely superadded, by which its efficiency is to be obtained; the patient is referred to a manufacturer, ignorant of those principles which should guide him in the application of his skill to particular cases, as he supplies himself from the commissioned vender, whose only concern it is to have a sale for an article, about the fitness of which he cannot be expected to feel more than a vender's interest. The warrants to "fit and keep its place"—the greatest desiderata in truss making, is better calculated to secure the money of the patient, than his comfort or advantage. The boasted perfections do away, in the mind of the wearer, with the necessity of any precautions, and he is left to his own ingenuity to discover even the suitable reapplication or adjustment of the instrument. That things should be thus in the hands of a trader, you cannot be surprised, but that they should be equally so in the hands of persons of professional pretensions, I am sure you will be astonished to hear. Trusses were, at one time, gratuitously distributed at the hospital for venereal complaints—an institution lately abolished by the government. During three years of my pupillage period, I was a diligent attendant; and I there witnessed the most utter disregard of public trust, and the most reprehensible neglect of professional duty. Trusses were publicly distributed, with the same carelessness which, I believe, they are when they are privately prescribed.

But we must learn to avoid the accusations in which the proceedings in both one instance and the other are most justly exposed. Let it then be your business to see that the instrument you advise, is prepared to meet the indications for which it is designed.

To affix a piece of mechanism as simple as this, to a part of a uniform shape, of fixed proportions, and of an unyielding nature, calls for no extraordinary display of skilful art. But it must be admitted, where no standard form prevails, where proportions are not the same, where motion is for ever active, and change of position is ever operative, that a skilfulness of management in adjustment is required, which the artist never can execute, except by our guidance, and under the improvement of our correction.

Well, we are engaged in the contrivance of a sufficient support for a weakened part of the abdomen—and of course we are to determine the extent in which such support is to be applied—as well as the form into which it should be moulded, to accommodate it to the surface against which it is permanently to lie and to press. We must also compute the degree of pressure necessary to keep the planned means of support in full and effectual operation. The extent and form of the part are to be fixed by an accurate observation of the space on which it is to act, and the shape of the part on which it is to rest. But the amount of pressure is a matter of somewhat nicer calculation. As to this point, the hand must be the chief guide, for it alone can value the amount of force it is requisite to employ. Here we are to take into account the impulse given by the most violent, as well as the ordinary exertions, in which a patient may be engaged. From experience, I am familiar with the difficulty of such calculations, and yet, I am sure I may safely say, these difficulties may be diminished by practice, and that we may at length be able to estimate the force we require, and, moreover, to express that force in very intelligible terms. I can now say to Mr. Kelly or to Mr. Dubbs, who are our most ingenious and intelligent artists in this line of business, "I want a pressure of a few ounces, or of a pound weight," and both of these persons understand my meaning, so that my intentions are seldom disappointed. Now, the next point is decidedly the most difficult of accomplishment—I mean the way in which the selected degree of pressure is to be applied and maintained in operation. This cannot be done except by the intervention of a well tempered spring, such as is now shewn to you. In act, and to be fixed in that action, you perceive it must embrace the trunk, and not only this, but it must be moulded to the form of that part on which it should rest, to secure a permanency of action; the instrument must sit with ease and efficiency; yet neither object can be satisfactorily obtained, unless proper measurements be taken, and the spring be well accommodated to the surface over which it is to pass, and on which, to a certain extent, it is to work. This attention is above all things essential in the construction of a truss; and yet, essential as it is, we find it constantly overlooked, and various contrivances, with most imposing names, advertised, to make amends for a deficiency, the cause of which lies in the imperfection of the cincture spring.

If sufficient attention be paid to these matters, in the construction of the truss

now and for many years in most general use, I am certain that instrument will be found, in the judgment of every impartial surgeon, to be far superior to all the boasted improvements which every day announces to the afflicted.

AN ABSTRACT

FROM

MR. G. D. DERMOTT'S LECTURE,

Delivered at the Medical School, Gerrard-street.

On the Use of Splints.

We have not long ago had it absurdly advanced in the Lancet, by Mr. Radley, "that *every* species of fracture which is curable with splints, may be much better cured without them, and that mechanical aid should be *passive* and not active." Now, I will not undertake to make the distinction between passive and active mechanical aid, nor to explain how mechanical agency can be passive—perhaps Mr. Radley can. But let us see what cases this gentleman brings forward to support his assertion that splints, in reference to all fractures, are useless and injurious, and whether he has dealt fairly with the argument.

In the first case of a young peasant, he states, "it was *twelve weeks* after the accident occurred when he first saw the patient," and during that time, "the limb had been *lightly* splintered up, and the muscles, by compression, had lost their power of motion." His professed object in alluding to this case, is to compare the ordinary plan of treatment with his own, which he ought to have known at the time when he was opposing it. For, I would ask, is the last-mentioned plan that which has ever been recommended by any who have advocated thy use of splints? Of course, pressure so long kept up, must tend, to a certain extent, to paralyze the parts; and I believe it to be an axiom in surgery, that pressure should only be employed to a moderate degree, and persevered in for a definite period. What surgeon would continue to lightly splinter the limb for twelve weeks?

The above case, if so treated, was treated very differently from the practice of our ablest surgeons.

The next case that he mentions, bears as little upon the point as the former, and must have been one of very rare occurrence, connected with some constitutional disturbance or peculiarity, or one of that treatment; or why should the "splints" and "tight bandages" have been kept on for so protracted a period as *six months*—particularly as he states it to have been a simple fracture.

"In cases of fractured ribs," Mr. Radley states, "splints are not applied, and yet the bones *unite and heal* without them," bringing this forward as a strong case to support his argument. But in instances of this kind, I conceive the advocates for the use of splints have a very strong point in their favour. We certainly know that splints cannot be applied to the ribs, and that re-union takes place without them; but what kind of a one—pray is it not a very irregular re-union in nine cases out of ten?—such a one as we might certainly have in other instances without the use of splints, but which we should be very sorry to see; he, however, I suppose, calls this "*healing.*" Boyer made this observation, "A broken rib cannot be displaced either in the direction of the diameter of the bone or that of its length; the ribs, being fixed posteriorly to the spine and anteriorly to the sternum, cannot become shortened. Nor can one of the broken pieces become higher or lower than the other, because the same muscles are attached to both fragments, and keep them at a certain distance from the contiguous ribs. The only possible displacement is either outwards or inwards." I do not altogether agree with Boyer in this statement; for although the two portions cannot over-lap, they are frequently displaced to a certain extent upwards and downwards, because the anterior part of the rib is naturally more moveable then the posterior, owing to its connexion with its flexible cartilage; still I admit that this displacement is limited by the action of the intercostal muscles, operating both superiorly and inferiorly upon both portions, and producing in the same ratio the effect of splints; consequently, the ribs unite more equally than most bones would without splints, or an analogous apparatus.

Again, in fractures of the clavicle, who will deny, save Mr. Radley, that the triangular pad in the axilla, and the circular bandage applied round the trunk and arm, according to the directions of Desault, so as to keep up extension and counter-extension of the two portions of the bone, does not materially preserve the co-aptation of its fractured extremities; operating in the same manner as Desault's splint, or as the double inclined plane should do in case of fracture of the femur, by extension and counter-extension—not by direct pressure. Would not the fractured clavicle, if left to itself, become a lamentable and irremediable blemish in the bosom of the other sex, and be well worthy of an action in a court of justice? It is true, that with the most assiduous attention, especially when the figure-of-eight bandage is employed instead of Desault's apparatus, there is often *some* deformity; but this is no reason that the bones shall be left by the surgeon in the very

anormal position in which he first finds them, and that they shall be allowed to "unite or heal" in that state. The very reason why we had had such greatly deformed shoulders as the effect of broken clavicles, before Desault's apparatus came into vogue was, that we could not apply splints, nor had we any plan of treatment to answer the same effect as splints.

He next brings forward, in furtherance of his object—for I cannot call it argument—the fracture of the *lower jaw;* or, as he has it, "a fracture of the right inferior maxillary bone." (There might have been a *lusus* in the case to which he alludes, as it is *rather uncommon* for a man to possess *two inferior* maxillary bones!) He says, that "no surgeon would think of using a splint in that case, and yet re-union takes place." But *it is* customary to use a splint, so as to apply mechanical support, or we infallibly have, provided both sides of the lower jaw are fractured, *deformity* as well as re-union. Wetted pasteboard is generally made use of; we also have recourse to a bandage for the purpose of supporting the anterior portion of the jaw, and preventing the action of muscles displacing the fractured extremities. When the pasteboard becomes dry it gets stiff, moulds itself exactly to the jaw, and thereby forms the most convenient and perfect splint imaginable, for surrounding and supporting the fracture.

By way of "argument" for the non-use of splints, he instances fractures of the cranium!!! "Long fissures and fractures of the bones of the cranium," says he, "become filled up with ossific matter, and unite with common warmth and quiet, without splinting." I need only here remark, that the ossification of a fracture of the skull bears no analogy whatever in this particular, to the re-union of cylindrical-shaped bones—the muscles not acting upon the portions of the cranial bones, so as to produce and keep up displacement; and, moreover, the re-generation of bone in a cranial fracture, not taking place in cartilage, proceeds very tardily: it is the process of years instead of a few months.

The next case is that of an elderly gentleman with a fractured tibia, about four inches above the malleolus internus.

Mr. R. says, speaking of this case, "I contented myself by saying that the fracture *was well reduced,*" as it was; adding, "that in the event of his feeling much pain from the splint, it might be removed. After a short time the splint was removed, and not afterwards put in requisition." This is another case not bearing in the slightest degree, as he presumes or professes it to do, upon the argument for the non-use of splints.

Mark—the fracture "was well reduced." He does not say whether there was any displacement, and it is more than probable there was not, and that therefore, from first to last, there was no fracture to reduce; for, the fibula being unbroken would act as a splint against the external side of the tibia, and prevent any longitudinal displacement: under these circumstances, every surgeon knows that splints are not required. Nor upon the authority of Pott, Sir Astley Cooper, and our own daily experience, do fractures of the radius without those of the ulna, nor of the ulna without the radius, absolutely require splints, so long as the extremities of the bones remain undisplaced.

The last case referred to, is also that of a fracture of the tibia. A very ugly "*cure*" of fracture at the upper portion of the tibia, occurred to an individual, by means of a cart wheel passing over it. "The surgeon splintered and bandaged as usual;" verily, I did not know before, that it was customary with *surgeons* to so *splinter* and bandage a terrible comminuted fracture, implicated with the knee joint, as this seems to have been.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(*Illustrated with Numerous Plates*).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

BY DR. RYAN.

LECTURE XXIX.

Procreation of the Sexes at Will—and of Vigorous Population.

ANOTHER curious inquiry was, whether it was possible to procreate the sexes at will: and this has been long determined in the negative by a preponderating majority of physiologists. Every one knows there are some families who are most desirous for male offspring, and others who are as anxious for female;

and even some who go so far as to expect that the sex of the fœtus in utero may be stated by their medical attendants. A few remarks upon these subjects are therefore necessary.

The ancients supposed that the right testicle and right side of the womb, produced male offspring, and the left the female. Hippocrates, Aristotle, and Galen, entertained this opinion; which was in time combated by Pare, Diemembroeck, Verhagen, Alberti, Franco, Hoffman, Bartholin, Vesalius, Harvey, and many others. These writers demonstrated that men who had one testicle produced infants of both sexes; and they also found male fœtuses in the left side of the womb, and females in the right; and finally, that the right Fallopian or uterine tube had been destroyed, in women who begot boys and girls. This opinion of the ancients was, however, lately revived by M. Millot, who has offered the following hypothesis, which, though apparently feasible, is most probably erroneous:— He states, that he made numerous experiments on human generation, and was well convinced that it is possible to procreate either sex at will. His views are denied by all modern physiologists. He entertained the exploded opinion, that the rudiments of male infants are in the ova of the right ovray, and those of the female in the left ovary. He concludes, upon this mere assumption, the position a woman ought to take during the sexual act, to obtain a boy or a girl. According to his views, she is partly to incline to the right side to obtain a male infant, and to the left to obtain a female; and a very slight inclination is sufficient. He states, that placing the woman completely on the side would diminish and distract the will in the moment of ecstacy, and cause the aura seminalis, or vapour from the seminal fluid of the male, which, in his opinion, is the prolific power, to ascend towards the opposite tube, and impregnate a vesicle or ovum in the left ovary. He holds, too, that there should be a perfect immobility on the part of the woman, during the acme of pleasure, lest there might be a deviation in the course of the seminal fluid or its *aura*. He states that he delivered a woman of six daughters in succession, and that the sex was determined by the error of Michael Procope Coutteau, who recommended the husband to lie to the left of his wife to obtain boys, and to the right when he desired daughters. He mentions the case of another lady, who brought forth twins, both males, after having followed his advice. Three other countesses obtained the same success by the same method. He proceeds to attest his physiology, and states:—

"The virtuous wife of the last Duke of Orleans, having given birth to two boys, consulted me, through the medium of Madame de Blat, her maid of honour, to inform her of the mode of procreating a daughter instead of another son. I gave the necessary information, and she brought two daughters into the world. This estimable princess wished again for a son, and she obtained one by following my directions. Five other ladies of rank obtained the sex they desired, by the same method."

This credulous author states, that he could give many similar examples, did he not consider that his details would be tiresome to his readers.

Venette, the author of the Tableau de l'Amour Conjugal, a work in great circulation in France, observes, "I knew some women who were always accustomed to lie on the right side when they slept with their husbands; it was always in this posture they were caressed, and they invariably conceived boys. The seed of man being received into the womb, must fall, from its weight, to the right side of that organ in which boys are oftenest formed." This was also remarked by Rhases, an Arabian writer, who said, "that women who lay on the right side scarcely ever had girls." Plato, and others, affirmed that the womb sucked in the male fluid by a hydraulic power, and con-

veyed it through the uterine tube to the ovary, which it fecundated; but many deny this hypothesis, on the authority of the illustrious Harvey, who made numerous experiments on deer, after copulation, but never discovered the male fluid in the uterus.

According to this hypothesis, the vapour, so far from falling by its weight towards the right side of the womb or tube, would always tend to ascend; and by the simple inclination, it would necessarily be directed towards the orifice of the uterine tube proceeding to the ovary which was to be fecundated; whilst in placing the woman on the side or back, the relative situation of the organs would be changed. But the last position is that in which generation is usually accomplished, and each side of the uterus, each ovary and tube, are in the same relative situation to the spermatic fluid; and, therefore, we cannot explain why opposite sexes are procreated by the same individuals. If the semen pass to the ovaries, as is generally supposed, it must ascend against its own gravity; and therefore this is a negative proof in favour of the ascent of a vapour from it. The experiments of Spallanzani, and others, who impregnated bitches by injecting the spermatic fluid very warm, as furnished by the male, when he allowed it to cool, and its volatile part to evaporate, his experiments were unsuccessful. But in many other experiments the male fluid of frogs, which was not only allowed to cool, but was largely diluted with water, caused impregnation. A remarkable case is mentioned by Mr. Hunter, relating to the human subject. A patient of his had fistula in perineo, through which the semen escaped during sexual intercourse, and Mr. Hunter advised him to collect it, and inject it into the vagina, which was done, and caused impregnation. I think this statement by no means satisfactorily proved; but, admitting it to be true, the semen must have cooled, and lost its volatile part.

M. Venette lays down seven rules for the art of procreating the sexes at will:—1, that persons should not procreate until the body is fully developed at the adult age, as the most vigorous generate more males than females; 2, they should use nourishing food and drink; 3, they should avoid all excesses of the table; 4, to obtain male infants the pleasure of love must be used moderately; for, after reiterated enjoyment, girls are conceived; 5, that women who menstruate moderately should not deliver themselves to sexual pleasure until after the end of each period; those who menstruate profusely or too frequently, should not deliver themselves to enjoy the same result, but only a short time before or after the evacuation; 6, that girls are begotten most frequently when the heat of the weather is excessive; 7, to obtain sons, the generative act should be performed when the wind is northerly.

High mental endowments and physical beauty are requisite for the procreation of infants of vigour and of genius. Men of great minds generally unite themselves to women of high mental endowments, and prefer these to pecuniary considerations, family connections, titles, and transient advantages*. It is admitted, that the moral and physical powers of parents, as well as their diseases, are transmitted to their infants.

There are unanswerable objections to this hypothesis. Jadelot and Velpeau have examined the bodies of women who had but one ovary, though they brought forth infants of both sexes; birds have but one ovary; the extirpation of one ovary of a sow or other mammiferous animal does not

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* The nobility of this and other countries have often married their inferiors in rank; and men of the greatest minds have preferred physical and moral endowments to riches. Many modern instances might be quoted, and some may be often noticed in the daily journals.

prevent offspring of both sexes. I am not aware of any case where the parents had but the right or left testis and ovary, and produced infants of both sexes; and the existence of both organs in either, and but one in the other, does not disprove the hypothesis in question.

All that can be said at present on the procreation of the sexes, extends to this, that the most vigorous men of a strong constitution have engendered more boys than girls; and that the most vigorous of the sexes determines the sex of the offspring. There are, however, numerous exceptions to this general rule, of which repeated observations have convinced me. It is by no means proved, however, in my opinion, that athletic men are the most prolific, or procreate a greater proportion of their own sex. We often observe the contrary, even when these are united to delicate women. Repeated observations have led me to this conclusion.

I have observed in many families the physical power of parents, and ascertained the comparative proportion of the sex of their children. But from my limited inquiries I cannot admit that the vigour of either parent invariably determines the sex of the offspring; for though this appears to be the case in some instances, it certainly is not so in others. Thus, we see delicate women and robust husbands produce more boys than girls, and *vice versâ;* and this is the result when young and aged persons are united in marriage.

The surest means by which sound and vigorous infants may be engendered is a good constitution, unenfeebled by excessive intellectual or corporeal exertion, or any chronic disease. The moral and physical dispositions are transmitted by generation; and hence we may conclude that healthful and vigorous parents can alone produce healthful and vigorous infants. It is universally admitted that diseased or delicate parents procreate diseased or delicate offspring. The same results are observed in plants and animals. Every one knows the truth of these statements. How often do we observe a fine, a beautiful woman of an excellent constitution, united to a small, diminutive, aged, broken-down, or deformed companion, or the reverse; and can it be supposed that the physical powers, the sympathies of such individuals, are favourable to the proper performance of the function of generation? Love cannot be reciprocal in such cases; and animal or organic impulse will prefer that which is more accordant with itself; even brutes prefer males which are possessed of vigour, power, and beauty; and this instinct is placed by nature in all animals. Whatever perversion civilization may effect in our hearts, tastes, and manners, it cannot extinguish this instinct. Even parental authority fails to destroy it; and though this often leads to unsuited conjugal unions, to the procreation of feeble offspring, which are doomed to constant sufferings, a miserable existence, insupportable to themselves and others of society, still the rights of nature exist inviolate. Unequal and unsuited alliances are contrary to nature, and to sound policy, because highly detrimental to population. Ample proof is afforded of the validity of this opinion, by a reference to the physiology of the various ages, and the difference in the genital power in each.

The observations of Mr. Coombe on this point are graphically correct.

"One organic law is, that the germ of the infant being must be complete in all its parts, and perfectly sound in its condition, as an indispensable requisite to its vigorous development and full enjoyment of existence. If the corn that is sown is weak, wasted, and damaged, the plants that spring from it will be feeble, and liable to speedy decay. The same law holds in the animal kingdom; and I would ask, has it hitherto been observed by man? It is notorious that it has not. Indeed, its existence has been either altogether unknown, or in a very high degree disregarded by human beings. The feeble, the sickly, the exhausted with age, and the incompletely deve-

loped, through extreme youth, marry, and, without the least compunction regarding the organization which they shall transmit to their offspring, send into the world miserable beings, the very rudiments of whose existence are tainted with disease. If we trace such conduct to its source, we shall find it to originate either in animal propensity, intellectual ignorance, or more frequently in both. The inspiring motives are generally mere sensual appetite, avarice, or ambition, operating in the absence of all just conceptions of the impending evils. The punishment of this offence is debility and pain, transmitted to the children, and reflected back in anxiety and sorrow on the parents. Still the great point to be kept in view is, that these miseries are not legitimate consequences of *observance* of the organic laws, but the direct chastisement of their *infringement*. These laws are unbending, and admit of no exception; they must be fulfilled, or the penalties of disobedience will follow. On this subject profound ignorance reigns in society. From such observations as I have been able to make, I am convinced that the union of certain temperaments and combinations of mental organs in the parents, are highly conducive to health, talent, and morality in the offspring, and *vice versâ*; and that these conditions may be discovered and taught with far greater certainty, facility, and advantage, than is generally imagined. It will be time enough to conclude that men are naturally incapable of obedience to the organic laws, when, after their intellectual faculties and moral sentiments have been trained to observance of the Creator's institutions, as at once their duty, their interest, and a grand source of their enjoyment, they shall be found to continue to rebel." (The Constitution of Man considered in Relation to External Objects. 1835.)

Dr. Pritchard, in his learned and valuable "Researches into the Physical History of Mankind," has accumulated a vast number of facts and opinions on the subject of hereditary qualities and diseases in our species. Among these he states—

"Children resemble, in feature and constitution, both parents, but, I think, more generally the father. In the breeding of horses and oxen, great importance is attached, by experienced propagators, to the male. In sheep, it is commonly observed that black rams beget black lambs. In the human species, also, the complexion chiefly follows that of the father; and I believe it to be a general fact, that the offspring of a *black father* and white mother is *much darker* than the progeny of a *white father* and a dark mother."—vol. ii, p. 551.

Mr. Coombe comments upon these facts in the following manner:—

"These facts appear to me to be referable to both causes. The stock must have had some influence, but the mother, in all these cases, is not impressed by her own colour, because she does not look on herself; while the *father's* complexion must strikingly attract her attention, and may, in this way, give the darker tinge to the offspring*.

"Dr. Pritchard states the result of his investigations to be, *first*, That the organization of the offspring is always modelled according to the type of the *original structure* of the parent; and, *secondly*, "That changes, produced by external causes, in the appearance or constitution of the individual are temporary; and, in general, acquired characters are transient; they terminate with the individual, and have no influence on the progeny.'—vol. ii, p. 536. He supports the first of these propositions by a variety of facts occurring 'in the porcupine family,' 'in the hereditary nature of complexion,' and 'in the growth of supernumerary fingers or toes, and corresponding de-

* "Black hens lay dark-coloured eggs."

ficiencies.' 'Maupertuis has mentioned this phenomenon; he assures us, that there were two families in Germany, who have been distinguished for several generations by six fingers on each hand, and the same number of toes on each foot,' &c. He admits, at the same time, that the *second* proposition is of more difficult proof, and that an opinion contrary to it has been maintained by some writers, and a variety of singular facts have been related in support of it.' But many of these relations, as he justly observes, are obviously fables.

"In regard to the foregoing propositions, I would observe, that a manifest distinction exists between transmission of monstrosities, or mutilations, which constitute additions to, or abstractions from, the natural lineaments of the body, and transmission of a mere tendency in particular organs to a greater or less development in point of size, and of energy in their natural functions. This last appears to me to be influenced by the state of the parents at the time when existence is communicated to the offspring. On this point Dr. Pritchard says, 'The opinion which formerly prevailed, and which has been entertained by some modern writers, among whom is Dr. Darwin, that at the period when organization commences in the ovum, that is, at or soon after the time of conception, the structure of the fœtus is capable of undergoing modification from impressions on the mind or senses of the parent, does not appear altogether so improbable. It is contradicted, at least, by no fact in physiology. It is an opinion of very ancient prevalence, and may be traced to so remote a period, that its rise cannot be attributed to the speculations of philosophers, and it is difficult to account for the origin of such a persuasion, unless we ascribe it to facts which happened to be observed.'"—p. 556.

"A striking and undeniable proof of the effect on the character and dispositions of children, produced by the form of brain transmitted to them by hereditary descent, is to be found in the progeny of marriages between Europeans, whose brains possess a favourable development of the moral and intellectual organs, and Hindoos, and native Americans, whose brains are inferior. All authors agree, and report the circumstance as singularly striking, that the children of such unions are decidedly superior in mental qualities to the native, while they are still inferior to the European parent. Captain Franklin says, that the half-breed American Indians 'are upon the whole a good looking people; and, where the experiments have been made, have shewn much expertness in learning, and willingness to be taught; they have however, been sadly neglected.'—p. 86. He adds, 'It has been remarked, I do not know with what truth, that half breeds shew more personal courage than the pure breeds.' Captain Basil Hall, and other writers on South America, mention, that the offspring of native American and Spanish parents, constitute the most active, vigorous, and powerful portion of the inhabitants of these countries; and many of them rose to high commands during the revolutionary war. So much is this the case in Hindostan, that several writers have already pointed to the mixed race there, as obviously destined to become the future sovereigns of India. These individuals inherit from the native parent a certain adaptation to the climate, and from the European parent a higher development of brain, the two combined constituting their superiority.

"Another example of the same law occurs in Persia. In that country, it is said that the custom has existed for ages among the nobles, of purchasing beautiful female Circassian captives, and forming alliances with them as wives. It is ascertained that the Circassian form of brain stands comparatively high in the development of the moral and intellectual organs. And it is mentioned by some travellers, that the race of nobles in Persia is the most gifted in natural qualities, bodily and mental, of any class of that people; a fact diame-

trically opposite to that which takes place in Spain, and other European countries, where the nobles intermarry constantly with each other, and set the organic laws altogether at defiance.

"The degeneracy and even idiocy of some of the noble and royal families of Spain and Portugal, from marrying nieces, and other near relations, is well known; and defective brains, in all these cases, are observed.

"Many facts illustrate the influence of the state of the parents, particularly of the mother, at the time when the existence of the child commenced, on its mental talents and dispositions.

"The father of Napoleon Buonaparte, says Sir Walter Scott, 'is stated to have possessed a very handsome person, a talent for eloquence, and a vivacity of intellect, which he transmitted to his son.' 'It was in the middle of civil discord, fights, and skirmishes, that Charles Buonaparte married Lætitia Ramolini, one of the most beautiful young women of the island, and possessed of a great deal of firmness of character. She partook of the dangers of her husband during the years of civil war, and is said to have accompanied him on horseback on some military expeditions, or perhaps hasty flights, shortly before her being delivered of the future Emperor.'"—(Life of Napoleon Buonaparte, vol. iii, p. 6).

"The murder of David Rizzio was perpetrated by armed nobles, with many circumstances of violence and terror, in the presence of Mary, Queen of Scotland, shortly before the birth of her son, afterwards James the First of England. The constitutional liability of this monarch to emotions of fear, is recorded as a characteristic of his mind; and it has been mentioned that he even started involunatarily at the sight of a drawn sword. Queen Mary was not deficient in courage, and the Stuarts, both before and after James the First, were distinguished for this quality; so that his dispositions were an exception to the family character. Napoleon and James form striking contrasts; and it may be remarked that the mind of Napoleon's mother appears to have risen to the danger to which she was exposed, and braved it; while the circumstances in which Queen Mary was placed, were calculated to inspire her with fear alone.

"Farther evidence of the same law may still be mentioned. Esquirol, the celebrated French medical writer, in adverting to the causes of madness, mentions that many children whose existence dated from periods when the horrors of the French Revolution were at their height, turned out subsequently to be weak, nervous, and irritable in mind, extremely susceptible of impressions, and liable, by the least extraordinary excitement, to be thrown into absolute insanity. A medical practitioner of Douglas, in the Isle of Man, mentions the following case:—A man's first child was of sound mind; afterwards he had a fall from his horse, by which his head was much injured. His next two children proved to be both idiots. After this he was trepanned, and had other children, and they turned out to be of sound mind. A lady of considerable talent wrote as follows to a phrenological friend:—'From the age of two I foresaw that my eldest son's restlessness would ruin him; and it has been even so. Yet he was kind, brave, and affectionate. I read the Iliad for six months before he saw the light, and have often wondered if that could have any influence on him. He was actually an Achilles.'

"In a case which fell under my own observation, the father of a family had been sick, had a partial recovery, but relapsed, declined in health, and in two months died. Seven months after his death, a son was born, of the full age; and the origin of whose existence was referable to the period of the partial recovery. At that time, and during the subsequent two months, the faculties of the mother were in high excitement, in ministering to her husband, to whom she was greatly attached; and, after his death, the same ex-

citement continued to operate, as she was then loaded with the charge of a numerous family, but not depressed; for her circumstances were comfortable. The son is now a young man; and, while his constitution is the most delicate, the development and activity of the mental organs are decidedly greater in him than in any other member of the family.

"Another illustration of the same law is found in the fact, that when two parties marry very young, the eldest of their children inherits a less favourable development of the moral and intellectual organs, than those produced in more mature age. The animal organs in men, in general, are most vigorous in early life, and this energy appears to cause them to be then most readily transmitted to offspring. Indeed it is difficult to account for the wide varieties in the form of the brain in children of the same family, unless on the principle, that the organs which predominate in vigour and activity in the parents, at the time when existence is communicated, determine the tendency of corresponding organs to develop themselves largely in the children. Since the first edition of this work was prepared, so many facts illustrative of the truth of this principle have been communicated to me, and observed by myself, that I now regard it as probable.

"If this be really the law of nature, as there is great reason for believing, then parents, in whom combativeness and destructiveness are in habitual activity, will transmit these organs, in a state of high development and excitement, to their children; and those in whom the moral and intellectual organs exist in supreme vigour, will transmit these in greatest perfection.

"This view is in harmony with the fact, that children generally, although not universally, resemble their parents in their mental qualities; because the largest organs being naturally the most active, the general and habitual state of the parents will be determined by those which predominate in size in their own brains; and on the principle that predominance in activity and energy causes the transmission of similar qualities to the offspring, the children will, in this way, very generally resemble the parents. But they will not always do so; because, even very inferior characters, in whom the moral and intellectual organs are deficient, may be occasionally exposed to external influences which, for the time, may excite these organs to unwonted vivacity; and, according to the rule now explained, a child, dating its existence from that period, may inherit a higher organization of brain than the parent. Or, a person with an excellent moral development, may, by some particular occurrence, have his animal propensities roused to unwonted vigour, and his moral sentiments thrown, for the time, into the shade; and any offspring connected with this condition, would prove inferior to himself in the development of the moral organs, and greatly surpass him in the size of those of the propensities.

"I repeat, that I do not present these views as ascertained phrenological science, but as inferences strongly supported by facts, and consistent with known phenomena. If we suppose them to be true, they will greatly strengthen the motives for preserving the *habitual* supremacy of the moral sentiments and intellect, when, by doing so, improved moral and intellectual capacities may be conferred on offspring. If it be true that this lower world is arranged in harmony with the supremacy of the higher faculties, what a noble prospect would this law open up of the possibility of man ultimately becoming capable of placing himself more fully in accordance with the Divine institutions, than he has hitherto been able to do; and, in consequence, of reaping numberless enjoyments that appear destined for him by his Creator, and avoiding thousands of miseries that now render life too often only a series of calamities. The views here expounded also harmonize with the second principle of this Essay, namely, that, as activity in the faculties is the

fountain of enjoyment, the whole constitution of nature is designedly framed to support them in ceaseless action. What scope for observation, reflection, the exercise of moral sentiments, and the regulation of animal impulse, does not this picture of nature present!

"I cordially agree, however, with Dr. Pritchard, that this subject is still involved in great obscurity. 'We know not,' says he, 'by what means any of the facts we remark are effected; and the utmost we can hope to attain is, by tracing the connection of circumstances, to learn from what combinations of them we may expect to witness particular results."—vol. ii, p. 542.

Mr. Coombe farther judiciously observes:—"A man and woman about to marry, have, in the generality of cases, the health and happiness of five or more human beings depending on their attention to considerations, essentially the same as the foregoing, and yet how much less scrupulous are they than the mere speculators in money? It is pleasing, however, to observe, that, in Wurtemberg, there are two excellent laws calculated to improve the moral and physical condition of the people, which other states would do well to adopt. First, 'It is illegal for any young man to marry before he is twenty-five, or any young woman before she is eighteen; and a young man, at whatever age he wishes to marry, must show to the police and the priest of the commune where he resides, that he is able, and has the prospect, to provide for a wife and family.' The second law compels parents to send their children to school, from the age of six to fourteen.

"There is no moral difficulty in admitting and admiring the wisdom and benevolence of the institution by which good qualities are transmitted from parents to children; but it is frequently held as unjust to the latter, that they should inherit parental deficiencies, and so be made to suffer for sins which they did not commit. In treating of this difficulty, I must again refer to the supremacy of the moral sentiments, as the theory of the constitution of the world. The animal propensities are all selfish, and regard only the immediate and apparent interest of the individual; while the higher sentiments delight in that which communicates the greatest quantity of enjoyment to the greatest number. Now, let us suppose the law of hereditary descent to be abrogated altogether, that is to say, that each individual of the race were, at birth, endowed with fixed natural qualities, without the slightest reference to what his parents had been or done! this form of constitution would obviously cut off every possibility of improvement *in the race.*"

I have made these long quotations from a vast number of others, equally pertinent to the subject under consideration, but I must refer to Mr. Coombe's work, all who are desirous of valuable information on the requisites, both moral and physical, for matrimonial engagements, and the propagation of healthful offspring. Every physiologist will agree with this talented author, "that the children of the individuals who have obeyed the organic, the moral, and the intellectual laws, will not only start from the highest level of their parents in acquired knowledge, but they will inherit a tendency towards an enlarged development of the moral and intellectual organs, and thereby enjoy an increasing capability of discovering and obeying the Creator's institutions."

The subject of births and marriages have great influence on society and nations, and are deeply interesting to families and individuals. They are now (Aug. 1836) attracting the deliberate consideration of the legislature, and an improved code of laws is about to be enacted relating to them. It is for these and other powerful reasons that I shall briefly describe the medical facts concerning marriage, with a view of elucidating the physiology of reproduction, the increase and improvement of offspring, and population. This plan has been already pursued by other obstetric professors.

Dr. Dewees, of Philadelphia, has commenced his valuable work "On Diseases of Children," with a long dissertation on marriage, and his example is worthy of imitation.

In former lectures I briefly described the sexual unions of plants and animals, and shall now consider the natural and legitimate intercourse of our species, in accordance with the established laws of marriage and physiology.

FURTHER REMARKS ON VACCINATION.

BY W. ELLIOT, M.D., CARLISLE.

(*Concluded from p.* 938.)

It is difficult to believe that Dr. G. Gregory disclaims the necessity of a constitutional disorder to render the affection satisfactory, after mentioning it as an objection to Bryce's test, "that it does not shew whether the constitutional effect has been complete or otherwise:" the inference being, that a full effect on the system would still be a desideratum, and any criterion by which such effect might be recognised, highly valuable. Yet the following sentences occur at page 406 of the work quoted,—"A few children pass through the disorder without the slightest indication of constitutional disturbance, which is not to be looked upon as by any means essential to the success of the vaccine process." And a little further, when noticing the occasional occurrence of lichenous eruption in certain habits on the 10th day, Dr. G. remarks, "this is an accidental occurrence, which, like the constitutional irritation, indicates a full effect upon the system, but is not deemed requisite to ensure it." Dr. Gregory, then, rejects Bryce's test as not determining whether the constitutional affection be complete, yet asserts that the occurrence of constitutional irritation (not assigning its degree) indicates a full effect on the system. This seems unfair and inconsistent, for the objection that Dr. G. makes to the value of Bryce's test is equally applicable to this criterion of mere constitutional irritation, or of lichenous eruption. Indeed, the making mere "constitutional irritation" or "disorder" to be indicative of the full specific effect of cow-pox on the system, or of any thing beyond the abstract energy of the lymph as a source of disease, seems neither accurate nor philosophical. On the other hand, the test of Bryce cannot by possibility involve any constitutional affection which is not purely vaccine; and should any other be present, it points to them as causes of interference. Dr. Gregory states, that "Jenner never laid much stress upon it." Jenner's words, in a letter to Bryce (Life, p. 536) are, "To all young vaccinators it cannot be too strongly enjoined. The experienced will determine from the character of the pustule." My object has been, not to advocate the necessity of Bryce's test, but to shew that it is founded on correct principles, while the arguments and views of some objectors are neither consistent nor sound. Lastly, if Dr. Gregory mean to assert that no specific or vaccine constitutional affection is requisite, he lays himself under the imputation of confounding such affection with mere "constitutional disorder or irritation," of which he predicates the non-essentiality, yet highly values the indications: while he opposes a view that is generally assented to—for instance by Moore (Parl. Ev. Q. 1987), Dr. Clement Hue (ib. 2002), and the late Duncan, Jun. (Ed. M. and S. J. 1820, p. 237).

Again, Jenner expressly laid down, that beyond a certain period of the affection, both in the cow and human subject, lymph ought not to be taken for use, since from its enfeebled or deteriorated condition it could not be depended on for producing a satisfactory form of the disease. Dr. G. Gregory (op. cit. p. 408), under "Surgery of Vaccination," would seem to admit this, and repeats the caution as regards lymph from the human subject: yet, in a preceding page (406, col. 2), while allowing that one only of a dozen punctures with lymph, of the 10th or 11th day, may prove effective, confidently states, "but that one is just as good and just as effectual in preserving from small-pox as a vesicle raised from lymph at an earlier age and greater intensity." He quotes the use of the scab in support of this view. But surely it is scarcely prudent to declare to the inexperienced or the unprincipled, that lymph thus confessedly weak, and of precarious effectiveness, is as powerful in preserving as that obtained "according to rule." Much is said of certain cases having been permanently protected: but how is the permanency of the protection to be known, save after the lapse of time, and after repeated exposures? Individuals thus warranted may, after all, become liable to an attack of variola at some future period. As to the use of the scab, introduced by Bryce, the means it afforded of ready conveyance abroad were certainly convenient, but a suspicion has been entertained that the failure of vaccination in some cases resulted from its employment, its solution, avowedly feeble in the extreme, producing an apparently regular affection at the time*. Such

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* "Out of twenty or thirty incisions made with virus got from scabs, not more than

recommendations, or permissions, appear injudicious—to say the least of it—when coming from the superintendent of a metropolitan station for vaccination, whose object, be it remarked with all deference, should be to enjoin, by precept and example, the most careful selection of virus for vaccinating, both as to quality and age, and to be most consistent and determined in discouraging the adoption of views of equivocal accuracy and tendency, as well as the performance of experiments neither safe nor beneficial, but useless, dangerous, nay, absolutely hurtful. Such would be attempts to renovate the supply from irregular vesicles by transmission through healthy subjects, (Cycl. P. M. iv. p. 412, col. 1), whereby the individual would be cheated of protection, and an egregiously deteriorated fluid propagated and disseminated, pregnant with delusive professions of protection to multitudes of unsuspecting beings thereafter submitted to its imperfect influence. Such, also, would be assays of the effects of lymph, abstracted at any date indifferently after the eighth day, in producing appearances of vaccination, satisfactory it may be to the eye, when one out of ten, twenty, or thirty of the trials does succeed, but in all probability affording a precarious and early declining protection against variola. If it be asked, why mistrust actual appearances, and object to such proceedings nothing but probabilities? The answer is, that the subject offers little else to direct us, and warn us, than probabilities. We have the authority of Dr. Geo. Gregory (op. cit. p. 406, col. 2) to shew that apparently regular vesicles will often produce in so many cases irregular successors, as to lead to the conviction that their contents were of "bad quality." Surely, then, one probability is, that if we be so imprudent as to tamper with the virus of manifestly irregular vesicles, we shall materially lessen the value of our vaccinations.

In answer to the Parliamentary Committee's Questions, 876, 877, Dr. Geo. Gregory states that a supply of vaccine virus was first obtained for the Small-pox Hospital, by Dr. Woodville, from cows in Gray's-Inn-Lane, on 19th January, 1799, which supply, "he has reason to believe, has descended without interruption" to the period of his examination, 1833. In answer to Queries 2005, 6, 7, 8, 15, he states, that from March to August, 1799, Dr. W. committed "the mistake," through distrust of vaccination, of inoculating with small-pox on the opposite arm; of the nature and consequences of which mistake he was ignorant "until late in that year." Yet from Answer 2017 we learn, that in 1800 Woodville "carried efficient cow-pock matter to Paris:" for that (2015) "in a certain number of cases he had not introduced both the disorders together." As we have already seen, De la Grange, Fiard, and others, agree in stating the manifest diminution in France (probably greater than in this country) of the anti-variolous powers of the vaccine virus. This circumstance deserves notice in connection with Woodville's mistake, more especially as in Cycl. Pr. Med. iv. p. 404, Dr. G. G. simply states that "in the course of these experiments in 1799, the variolous and vaccine poisons became mixed, and much confusion ensued;" and as we are not assured whether those cases from which that French supply, and reputedly the whole present supply of London (Q. 878, 9) descended, did, without interruption, receive a non-variolated cow-pox from Jan. 1799; and further, as in Jenner's Life, pp. 245 and 342, allusion is made to the subsequent extensive use of the contaminated virus, and to the remarkable fact, that by degrees it became assimilated to the true vaccine lymph, and lost its variolous impregnation. That this adulterated virus was most extensively used, and productive of commensurate mishaps, is well known: probably some of it is still in use, to the injury and disrepute of the cause; but the accuracy of Dr. Gregory's notion, that the cow-pox existing in London in 1833 was entirely derived from Woodville's experiments, cannot be known with any thing like the same certainty. Although, as above quoted, Dr. G. gives his word that Woodville kept and propagated separately a pure stock of cow-pox, still the information that the whole stock of the metropolis, on which, too, the country and foreign stations have constantly been drawing, "descends from Woodville's experiments," would, if correct, be by no means generally acceptable or satisfactory. The position seems incapable of being disproved, that if we possess at the present day virus that has descended directly and uncontaminated from Woodville's properly conducted cases, we may also be using some of that virus which unfortunately in his hands became variolated, and afterwards became less and less communicative of small-pox (Jenner's Life, pp. 245, 345), "lost much of its virulence," and "in six or seven months gave up its variolous character entirely." It was permanently propagable, and was propagated as apparently pure cow-pox; but whether it came through its variolous ordeal quite unscathed, is exceedingly problematical*. It remains for

one or two will be found to take effect."—Dr. G. G. op. cit. p. 406.

* The circumstance of the variolous impregnation having been gradually lost, is curious: in individuals, at the first the small-pox predominated, but the effect of repeated transmissions was its expulsion. This merits notice as a proof of the abstract power of such repetition of inoculation over the virus used. See Jenner's account of a similar

me, however, to shew that it is extremely probable that the supply, even at the Small-pox Hospital, was in subsequent years continued from other sources than Woodville's stream of doubtful purity. Dr. Geo. Gregory, in Answers 882, 3, says there is no record of that supply having been lost. He speaks with positive certainty from the year 1819, and Mr. Wachsel gave him information relative to preceding years. Now, Woodville's experiments and mistakes occupied from March to August, 1799, and of their nature and consequences he became fully sensible in December, 1799. Mark, then, that in the year 1800 the following circumstance occurred, as related at p. 379 of Jenner's Life. "On 12th April Dr. Jenner received, whilst in London, some matter which had been generated in the cow by inoculation with the virus of grease, by Mr. T. Tanner*. Some part of this matter he transmitted to Mr. Wachsel of the Small-pox Hospital." This ought to have formed part of Mr. Wachsel's communication to Dr. G. Gregory. Jenner, who well knew from the first the nature of Woodville's blunders, took even an earlier opportunity (see Life, p. 343) of introducing another stock of virus "procured from a London cow:" and it is a query whether still further supplies of fresh matter were not by himself and others introduced in later times. These facts are merely adduced for the purpose of obviating any feeling of dissatisfaction that might arise from understanding the whole metropolitan supply to have descended from Woodville's experiments.

Little more than a bare citation of the following seemingly inconsistent passages in the paper so often referred to, must suffice. From three extracts from Dr. G. Gregory's essay (Cycl. Pr. Med. pp. 415, 412, 414) given in my first paper, it will be seen that that author allows, that within two or three years at least after vaccination, there is no susceptibility to small-pox; that small-pox, after vaccination, is much more frequent in adults than in children; and that he is "strongly disposed to believe that the susceptibility to small-pox does return in many cases," from change of climate and the occurrence of puberty. At p. 411, he indites, "the number of persons who have taken small-pox after undergoing cow-pox in a satisfactory way, is now so great," &c. &c. At p. 412, "in process of time, these cases became both more numerous and less equivocal." Yet, at p. 414, the possibility of the decadence of vaccine influence at all is put as a query, is "further extended," and "fairly applied," to those cases, viz., "in which the primary process is complete in all its stages." And Dr. Gregory adds, "years must elapse before this question can be answered, &c. In the present state of our knowledge, permanent security is the law of the animal economy, and temporary security the exception." At p. 408, under "Revaccination," Dr. G. mentions proof of more or less complete "renewal of susceptibility to cow-pox," which Jenner, it appears, at first maintained (p. 408), but afterwards "resolutely opposed" (p. 413) under "Causes of Small-pox after Vaccination," and p. 414, under "Decadence of Vaccine Influence)." But Jenner allowed the decline of the influence of imperfect vaccination, as also does Dr. G. Gregory (p. 414); who expresses himself in terms of regret and reprehension, that Jenner was so sanguine as to promise permanent protection from satisfactory vaccination, avows that experience bears out the popular notion, originally prevalent, that cow-pox only protected "in a certain degree" (p. 411), designates certain passages in the Report of the Nat. V. Inst. as "loose statements," whereby it appeared that few cases of failure had then occurred, or that "temporary security was the exception," says that if one-tenth, or one-twentieth of the vaccinees of that institution subsequently took small-pox, its officers would probably never learn it, states "that many have taken small-pox after undergoing cow-pox in a satisfactory way," as above quoted, yet asserts that "years must elapse before this very point can be decided;" and that "permanent security is the law."

The following passages relate to the questions of deterioration by repeated human inoculations, and of the propriety of occasional recurrence to the cow. "It has been repeatedly urged, that the vaccine virus deteriorates by passing through a succession of human bodies. This idea was never countenanced by Dr. Jenner. Such a notion has neither reason nor analogy in its favour," p. 413. "When Jenner ascertained the true cow-pox itself could not always be depended on, he contended that cow-pock virus originally good, might become, from a variety of causes, so deteriorated in quality as to produce a local disease," &c. p. 412*. And Dr. Gregory, himself, admits, p. 413, "if children are successively vaccinated from each other, all of whom are from various causes ill disposed to take on the perfect disease, the virus may unquestionably degenerate, and at length wear out altogether, as in tropical

effect of inoculation on small-pox itself. Life, p. 245.

* The virus thus obtained by farmer Tanner, and, in all likelihood, on this same occasion, "proved efficacious in infecting both human subjects and cows. Ibid. p. 249.

* See also a quotation in my first paper from Dr. Duncan, junior, fully imputing his belief to Dr. Jenner in express terms, viz., "degenerating from passing through a succession of individuals of the human species," &c.

countries and confined localities certainly takes place."* Notwithstanding the many chances of injury to the quality of cow-pock virus, which Dr. Gregory enumerates, and sundry others in addition, he is so far from recommending its occasional renewal from the source whence it first flowed, that he sneers at it as "specious," (p. 415). and even offers "conclusive arguments" against that proceeding. First, he says, "there must always be a doubt as to the purity and genuineness of the new stock until the experiment of variolous inoculation has been subsequently made, which parents are very seldom disposed to allow." But if a few experiments of the kind were considered necessary, would it be more difficult to perform them now than 35 years ago? It is to be feared that many would now grant a trial of small-pox inoculation unconditionally, and quite as readily as they would accede to vaccination. Secondly, Dr. Gregory says, "further, the true vaccine lymph, as first taken from the cow, is frequently very acrid, producing glandular swellings," &c. This is said, be it observed, of the true lymph, and is certainly an avowal of a frequent difference of character between it and the harmless fluid so long humanized, considered as abstract causes of diseased action, and giving Dr. Gregory all the benefit of the idea, probably not incorrect, that such abstract power may not be at all identical with a specific prophylactic or anti-variolous power, though in the case of true virus, it would certainly be satisfactory to find them co-exist. That this, however, is not Dr. Gregory's view, is probable from one of his reasons why we should not give ourselves the trouble of renewing the supply, viz., that "in Italy there was no perceptible difference between the course of the old and new, the primitive and the humanized lymph." But as this reason rests entirely on the course, or appearances, while the comparative prophylactic powers are not alluded to, it seems entitled to little weight. "Lastly," says Dr. Gregory, in opposition to the renewal of the virus, "it is not found that cases of small-pox are more frequent in those recently vaccinated, than in those vaccinated in the infancy of the practice." Now, if this consideration (after the preceding statements) possess actual accuracy and value, it must be in another sense than that in which it is here used. For Dr. Gregory himself elsewhere shews, that imperfect vaccination conveys a temporary security (p. 414), and that it is to the decadence of the vaccine influence in individuals that are owing the frequent seizures of those formerly vaccinated, while in a general way there is no susceptibility to small-pox within five years after vaccination.

We find, however, the following admission: "more recent experiments in India tend to shew that the measure may, on some great occasions, be adopted with advantage." But it is reluctant, and is thus followed up; "but it is clear, even from these statements, that recurrence to the cow is not lightly to be recommended, nor adopted without great and multiplied cautions." This cautious mood certainly contrasts strongly with that free conception of Dr. Gregory's formerly mentioned, of inoculating with irregular virus, with a view to "restore it!" I confess it does to me at least appear most unaccountable, that one who would sanction, under any circumstances, the use of deteriorated virus, should decline to employ, and deter others from employing, recent virus of undoubted quality; for even "true virus" comes within Dr. Gregory's proscription. It appears strange, too, that one who admits the frequent occurrence of small-pox in cases regularly vaccinated, who states these cases to have become more numerous and less equivocal, who also quotes Greenhow, to shew both the increasing number and virulence of these cases, who allows the conditional deterioration and even extinction of regular cow-pox from causes that are in constant operation, and who concedes that, on some great occasions, renewal of the virus may be adopted with advantage, should nevertheless argue against the adoption of that measure in Great Britain! and in so doing, should adduce reasoning at once weak and irrelevant. Thus, why object that subjects of inoculation from new virus, ought to be tested with small-pox? If the virus be procured strictly according to rule, would those infected by it, and exhibiting satisfactory appearances, require to be so tested, more than the subjects of those experiments by which deteriorated lymph is to be "restored to a perfect state?" Dr. Gregory treats as absurd, the notion that long humanized virus is less energetic than recent; but he also declares the true recent lymph to be frequently very acrid, producing certain striking effects; thus laying down, first, that we need not, and secondly, that we ought not, to venture out of the good old path. But then he triumphantly states, that in Italy, the course of the new and of the old was similar; from which declaration, coupled with the preceding, the conclusion, even from Dr. Gregory's own dicta, is unavoidable, that

* Dr. Gregory adds, "but this is very different from the notion of a virus deteriorated by the "mere influence of time." But as this is a case in which we cannot separate the influence of time from that of the various shades of constitutional inaptitude and other causes of interference in the vaccinated, the value of Dr. Gregory's allusion to abstract time is not apparent. Who will take upon him to say, that every constitution and other circumstances concerned with the transmission of the virus hitherto, has been unexceptionable?

there is a difference in point of energy between recent and long-humanized true lymph, yet that the frequency of the severe symptoms is by no means appalling.

In conclusion, I have to apologise for the length of this communication, for my free criticism of the published opinions and arguments of, as I doubt not, a worthy individual, and for the hasty and ill-arranged manner in which they are unavoidably offered. I could not legitimately plead in excuse, that the subject is a favourite one with me; but I can, with propriety, allege its vast importance to the first community of men, and draw attention to the curious circumstance, of a coincident and simultaneous impression on it having arisen in the minds of many observers, in different quarters of the globe. Considering what has been done in Wirtemberg, Italy, India, and elsewhere, as well as the present agitation of the question in France, I cannot forbear expressing a wish that ere long, may be generally approved and accomplished in Britain too, a measure "so beneficial on some great occasions;" and one which, if followed up by a repetition of vaccination in adolescence, would, in all probability, impose a more effectual check on the inroads of small-pox, than has ever yet been applied.

Carlisle, August, 1836.

DISEASES OF THE KNEE-JOINT.

Inflammation of the Internal Lateral Ligament of the Knee.

Ann Fitts, æt. 36, admitted into Queen's ward, October 29, 1835.—Of regular habits. States that about two months ago, after exposure to damp and cold, she experienced a dull aching pain in the right knee, increased on any motion, and particularly severe at night. Leeches have been applied, but without benefit.

On admission, she complained of much pain in the knee, especially in the situation of the internal lateral ligament: becoming more severe, and disturbing her greatly at night. The leg was flexed upon the thigh, and any effort to extend it produced severe pain. General health good. ℞. Morph. Acet. gr. ss. omn. noct. Applic. Moxa super. musc. vast. intern.

Nov. 7.—Sleeps well at night. Pain greatly relieved, but pressure over any part of the joint excites it in a trifling degree. Moxa discharges but little.

Nov. 20.—Sleeps well at night, but has made little progress since the last report. She complains of some pain in the knee, and is unable to extend the leg.

Dec. 2.—Has had but little rest for the last night or two, and has more pain in the knee, which she attributes to having endeavoured to straighten the leg. The leg to be extended in Amesbury's apparatus and the moxa to be repeated.

The application of the apparatus produced considerable pain, which lasted for a short time. She has at present only a little tenderness, chiefly in the situation of the internal lateral ligament, and rests well at night.

Under a continuance of this treatment she gradually improved.

The affection of the ligament is quite relieved, but she cannot perfectly extend the limb at present.

Inflammation of the Internal Lateral Ligament of the Knee.

Harriet Wynch, æt 39, cook, admitted into Lydia's ward, Sept. 4, 1835.—States that about two months ago, after much exercise, she experienced pain at the posterior part of the left knee, which shortly became so severe as to compel her to leave work. She then went into the country, and by rest and quiet, the pain having subsided, she returned to her situation; but in the course of a few days the pain recurred with increased violence, and was particularly severe during the night, so as to materially disturb her rest. Leeches were applied, but without benefit.

When admitted, she complained of a dull aching pain at the posterior and inner part of the knee, especially towards evening and during the night. The posterior part of the joint was somewhat swollen, and extremely tender. Hirud. xxiv. genu applic. ℞. Hydr. Submur. gr. j. omn. noct.

The leeches relieved the pain for a short time, and she was subsequently cupped to six ounces, over the vastus internus muscle, but with very little benefit. The pain at night continued very severe, and prevented her rest. ℞. Pulv. Opii gr. ss. omni nocte. Lot. Spir. Vin. genu.

Sept. 16.—Rest still disturbed, but the pain and tenderness somewhat less. ℞. Pulv. Op. gr. j. omn. noct. Emp. Lytt. genu.

Sept. 23.—Rests better: in other respects much the same. Repet. Emp. Lytt.

Oct. 6.—Complains of much pain: the posterior and inner parts of the knee are very tender. The opium produces headach and costiveness. Repet. Emp. Lytt.

Oct. 14.—Pain and tenderness less. She rests much better at night, but complains much of headach.

Oct. 23.—the pain in the knee is greatly relieved, and but little excited by pressure. The headach still very distressing. ℞. Liq. Opii. Sed. ℥ ss Mist. Camph. ℥ jss. hor. somni Applic. Ung. Hydr. Fort. genu.

Oct. 30.—Pain in the head less, but still very distressing. In other respects much the same. ℞. Pil. Galb. C. Extr. Hyoscyam. āā. gr. v. omni nocte.

Nov. 4.—She rests better at night, but

complains of more pain in the knee, the inner part of which is very tender. Capt. Pil. bis quotid. Applic. Cerat. Sapon. et Opii part. æqual. genu.

Nov. 11.—Sleep undisturbed, and says she has less pain in her knee than since her admission; but pressure on the inside of the joint still gives pain.

Nov. 18.—The pain in the knee very severe last night, and the joint very tender. ℞. Tinct. Valer. Ammon. ʒj Aq. ʒxj bis die.

Nov. 25.—Much the same, but complains that her rest is again disturbed by pain in the knee. She has frequent tremors of the limb, lasting about ten minutes, after which the pain is very much increased. The whole joint is tender, especially at its inner and posterior part, to which the pain is principally referred. Headach at times very distressing. ℞. Ferr. Subcarb. ʒss ter die.

Dec. 2.—Pain and tenderness of the knee much the same. Complains of throbbing in the joint, and has occasionally extreme heat on its inner side, continuing for about a quarter of an hour, and followed by a corresponding degree of coldness. Trembling of the limb occurs more frequently, and the pain is greatly increased for a short time after its cessation. The headach at times very distressing, and chiefly referred to the forehead and temples. Appetite impaired. Alvine secretions of a very dark colour, and exceedingly offensive, with torpor of the bowels. Uterine functions natural. ℞. Assafœt. Gum. ʒss. Aq. Fervent. ℥viii ft. Enema tepid. alt. noct. injiciend.

Dec. 8.—Complains of tightness across the chest, and cough: rest at night still much disturbed: headach relieved, secretions natural, and appetite improved. The knee remains in the same state.

Dec. 10.—Left the hospital to-day, and directed to take the following, instead of the former medicine. ℞. Ext. Coloc. C. ℈j Ext. Hyoscyam, ℈ss. Ext. Aloes C. gr. jss. divide in pilulas vi quar. capt. duo alt. noct. Mist. Ferr. C. Oj Tinct. Castor. ℥j fiat Mist. cujus capt. cochl. duo ampl. bis die.

Inflammation of the Fibrous Tissue of the Knee, with partial Anchylosis.

Richard Gifford, æt. 47, sailor, admitted into Abraham's Ward, Nov. 19, 1835.—Of very intemperate habits. States that about the year 1819, while at sea, he received a severe blow on the outer side of the knee-joint from the fall of a block: much pain and swelling followed the injury, and he was obliged to discontinue his work. For this he gained admission into the Bermuda hospital, where blisters were repeatedly applied, and blue ointment rubbed over the joint. By this treatment the pain and swelling disappeared, and he left the hospital, with some stiffness, however, remaining. From this time till about two years ago, he experienced no pain or inconvenience in the joint, except that arising from its stiffness, when (without any apparent cause) it began to swell, and was very painful, particularly at its outer side. At this time he gained admission into the hospital-ship Dreadnought, where blisters and leeches were repeatedly applied to the joint, and in three months he was discharged, the stiffness having increased. About two months ago, the joint became again affected in the same manner, and with as much violence. No remedies were made use of with the exception of rest. He supported himself entirely by sail-making.

On his admission, he complained of a dull aching pain in the left knee-joint, (not referred to any particular spot,) which was much increased during the night. On pressing the head of the tibia against the condyles of the femur, an acute darting pain was experienced, particularly at the anterior and inner side of the joint. The pain, which was not particularly severe during the day, seemed to extend up the outer part of the femur, as far as the great trochanter, along which course there was some tenderness. The motions of the joint are very limited. The limb is a little wasted. General health good: appetite good: secretions natural: rest at night rather disturbed by pain. ℞. Mist. Sennæ. Comp. p. r. n. Empl. Lyttæ genu applic.

Nov. 24.—Pain in the knee less: the pain extending up the outer side of the femur but trifling; pressure upon the trochanter major, and for about two inches down, does not produce pain: from this spot to the knee a degree of soreness is complained of, increasing towards the condyles.

Nov. 29.—Much the same: can bear pressure over any part of the joint, with the exception of a small spot at the anterior and inferior part of the inner condyle.

Dec. 2.—Complains of more pain in the joint, particularly in the situation of the lateral ligaments, and the spot before referred to, which is extremely painful and tender: rest at night greatly disturbed. Appetite remains good: bowels rather constipated, but are regulated by house medicine. Rep. Empl. Lyttæ.

Dec. 8.—No alteration since last report: the general health remains pretty good: the blister has nearly healed.

Dec. 16.—Pain in the knee better; but he has had some return of it up the outer side of the thigh, which did not continue long: says he rests better at night, and the bowels act without the aid of medicine. Adhib. Ung. Hydriod. Potass.

Dec. 24.—Has no pain or tenderness in the joint: flexion and extension of the leg,

which are much less limited, produce no pain: the size of the joint is much less, but still somewhat larger than its fellow: appetite good: rests well at night: all the secretions natural.

Dec. 30.—Presented.

Destruction of the Ligaments, Synovial Membrane, and Cartilages of the Knee-Joint, with partial Dislocation backwards.

Samuel Ruffle, æt. 24, porter, admitted into Abraham's Ward, Oct. 1, 1835.—Of regular habits. States that, when about seven years af age, he had some affection of the right knee, in consequence of a blow received whilst at play, and since that time the joint, has remained stiff. About last Christmas he fell with some violence on the same knee, which was followed by considerable pain and swelling, so as to oblige him to discontinue his work. Leeches were applied to the part, which afforded him so much relief as to enable him to return to his employment. He remained pretty well, but occasionally suffering pain in the joint up to last June, when the pain became so severe that he could no longer use the limb. The joint swelled considerably, and after some time an opening formed on the inner side of the leg, about two inches above the joint, which gave exit to a great quantity of pus mingled with synovia.

On admission he complained of severe pain in the knee, more particularly towards evening and during the night. The posterior ligaments of the joint were destroyed, and the tibia was partially dislocated backwards, and its head much enlarged. Much healthy pus was discharged from the wound. The limb considerably wasted. Rest at night greatly disturbed. General health but little impaired. The knee to be flexed, and a pad placed behind the head of the tibia. Applic. Moxa genu part. extern. ℞. Pulv. Rhei ℈C. ℈ij. p. r. n. Morph. Mur. gr. ss. omni nocte. Quin. Sulph. gr. iij. Inf. Rosar. ℥j ss. ter die. Cerevis. Oj. quotid.

Oct. 8.—He sleeps better at night. The moxa discharges freely and the pain is less, but the slightest motion of the joint excites it severely.

Oct. 14.—The condyles of the femur have not altered their position. He complains of great tenderness at the inner part of the knee, of an acute darting character, occurring at intervals. General health good.

Oct. 21.—Rest well at night, and does not complain of any pain except when the limb is moved: the wound and the moxa both discharge freely. The size of the knee is somewhat diminished. The leg to be placed in a cradle.

Oct. 26.—Has had much pain since the leg has been placed in the cradle, and last night had no rest from pain. The discharge from the wound is trifling. A slight swelling, attended with pain and tenderness, has formed on the outer side of the knee.

Oct. 30.—Still suffering considerable pain. The swelling on the side of the knee has increased, and is extremely tender.

Nov. 2.—Fluctuation being very distinct, an incision was made into the swelling on the outside of the joint, and a considerable quantity of healthy pus discharged, which greatly relieved the pain. The condyles still project forwards, and he complains of sharp pricking pain just below the inner one.

Nov. 11.—The wound on the outer side of the joint discharges freely, but he has no pain in the knee, nor is any excited by pressure. Sleeps well. General health good.

Nov. 18.—Discharge diminished. In other respects much the same.

Nov. 24.—Doing well. The condyles have nearly regained their natural position.

Dec. 1.—The wound on the outer side of the joint has healed, but that on the inner continues discharging freely. Health good. A small and very painful sore has formed on the heel, in consequence of pressure.

Dec. 9.—The limb, instead of being flexed on the thigh, is now nearly at right angles.

Dec. 11.—Has been gaining flesh rapidly, but has now caught cold, and complains of headach and cough.

Dec. 14.—The catarrhal affection has subsided. The wound continues discharging freely. The sore on the heel improving.

Dec. 19.—Complaints to day of some pain, which he refers to the centre of the knee-joint, and pressure on either side of the patella causes pain. The sore on the heel having become again very painful, the cradle was removed yesterday, and the limb placed on pillows, which may in some degree account for the return of the pain in the knee.

Dec. 26.—The limb has been replaced in the swing-box; he is now very comfortable, and has no pain in the knee. The wound still continues discharging.

Jan. 11, 1836.—Another opening has ulcerated on the outer side of the knee, from which their is a free discharge. The tibia is now nearly in its natural position, and he is free from pain.

Jan. 26.—The opening on the inner side of the thigh still discharges. In other respects he is well.

March 5.—Having continued well up to the present period, with the exception of the wound on the inner side of the thigh, which continues much the same, he was presented to day.

Since he left the hospital, two small portions of bone have been discharged from the wound.

Clinical Observations.

The case of Ann Fitts (page 958) is a common case of affection of the knee, particularly in women. The internal lateral ligament is, for an obvious reason, more

liable to disease in females than any other ligament in the knee-joint. We know when we look to the skeleton, as deprived of the soft parts, that even in a well-formed male the femur has a little inclination inwards towards the median line, as you trace it from above to below, but, from the difference of the length of the two condyles, the tibia is brought nearly to the perpendicular, so that every person well formed is slightly in-kneed. But when the pelvis is broad, as in women, and the thigh-bones are separated to a great extent above, the inclination of the lower part towards the median line becomes greater, the obliquity is greater; and it is for this reason that, in females, when well formed, you have that particular form of limb which is termed in-kneed, and sometimes to a considerable extent. You will observe that in women, where the pelvis is broad and the hips wide, there is always a slight waddle in the walk, inasmuch as they are obliged to throw the inner condyle of one femur over the other as they make progression, otherwise, if they were brought directly forwards, one would strike against the other. It is this which gives the rolling to women with large pelves. In consequence of the inclination of the knee inwards, if any force be applied to this part, as in running, jumping, and so forth, the internal ligament is the part which receives the most stress, it therefore more frequently receives injury, and for this reason is more subject to disease than any other ligament of the joint. Next to this, the posterior ligament becomes affected, because, in the extension of the leg beyond a certain degree, it is put upon the stretch, and that is the mode in which injury is inflicted, next in frequency to the ligament before described. There was no other evidence of affection of the knee farther than a general pain, but this was of slight extent compared with that which existed over the internal lateral ligament. The contraction of the leg is not uncommon. We have observed, with regard to diseases of the hip, that the muscles lose their tone immediately about the joint. The muscles are not placed so immediately about the knee as about the hip-joint; we have the tendons passing round, and the muscles above more frequently become affected than those which go to supply the foot. But the contraction, after a slight continuation of disease in the knee-joint, may be attributed, not so much to any morbid condition of the muscles, as to the position that the patient maintains, for the purpose of enjoying rest or freedom from pain. A patient lying on her back flexes the leg on the thigh; she finds, under this condition, particularly where the internal lateral ligament is affected, that the ligament being relaxed the pain is relieved; whereas, if the leg be extended, the ligament becomes stretched, and the pain is more severe. If the limb is retained in this position for hours together, the muscles contract, and ultimately the contraction becomes permanent. It requires the application of force for some time to extend the limb, when the contraction has existed for many weeks or months.

There is nothing otherwise particular in this case. The part diseased was indicated by the position of the pain; the character of the disease was indicated by the character of the pain; and being worse at night showed it to be an affection of the fibrous tissue. The free motion of the joint, without crepitus in the situation of the synovial membrane, shows that membrane to be free from a participation of the affection. She has been cured under the most simple means, the application of a small moxa, and attention to the general health.

In this case, I might remark that there was a deviation from the plan of treatment, of which I spoke when treating of hip disease. I then said that it was best to apply a moxa as near as possible to the affected part; but as there is not sufficient superstructure to admit of an eschar being formed, without exposing the joint, and as the parietes of the joint are so thin over the internal condyle that there would be risk upon the separation of a deep slough, of the ligaments being exposed, and setting up therefore the more severe form of the disease, for these reasons the moxa was applied a little above the situation of the ligaments rather than upon them.

The case of Harriet Wynch has been an interesting one, inasmuch as, in the first instance, there were symptoms indicating acute inflammation of the internal lateral and posterior ligaments. Perhaps the situation in which the affection was described by her to exist, led me not to go so far into the history of the case as I might otherwise have done, and this, in combination with the description that I misunderstood, that she had been relieved by counter-irritants and leeches, led me to presume that it was a case of common inflammation of these ligaments, which would be relieved again, I considered, by rest and the treatment from which she had previously derived benefit. I, therefore, in the first instance, attended to the secretions, and in consequene of there being a great deal of tenderness, employed local bleeding, first leeches, and afterwards cupping, and then had recourse to counter-irritation by a blister. The little amendment however that took place, and more particularly the description of the pain, induced me to look a little farther, and I then found that she had the nervous, tremulous pulse belonging to hysterical patients; that she was frequently the subject of headach; seldom without it; and that this was principally complained of over the forehead. This, however, was a little puzzling, when

I came to find that the uterine secretions were in a proper condition: but as I have frequently seen hysteria in a violent degree while the uterine functions appeared good, I was not so much surprised by observing this. I turned my attention more particularly to the general treatment: locally, I applied some ointment and fomentations; but in spite of the remedies adopted, very little progress was made. The fact is, she was apparently loosing flesh, and had become more pallid than when she was admitted; she had a weaker pulse, and altogether less power and more headach, although, at times, the headach was slightly improved; she had that peculiar tremor which often attacks persons disposed to hysteria; and other symptoms affecting the knee, which was not so well. The point which convinced me that the affection was not one of actual inflammation of the ligaments of the knee, but a sympathetic disease depending on the peculiar condition of the constitution, is this, that if she had inflammation merely of the internal lateral ligament and the posterior ligament, the pain would be confined to these parts, particularly when the limb was at rest, and she would complain of pain, particularly on pressure on those parts; but when you examined the surface of the joint, it mattered little where you presssd, if on the patella, on the ligamentum patellæ, on the space between the internal lateral ligament and the ligamentum patellæ, on the vastus internus, or down below this muscle on the head of the tibia, it was all the same: she complained of pain. She complained, perhaps, more acutely, if you pressed on the lateral ligament, or the posterior part of the joint; but that is not a matter of surprise.

Supposing that there had been actual ligamentous disease, what would have been likely to occur under the unimproved condition of the general health, that is, losing power and becoming more irritable? I know if there had been any fibrous disease, what would have been the consequence. Instead of a mere thickening from the deposition of adhesive matter, we should have had ulceration take place, evinced by a further tumefaction, by an increase of pain, by general rigors indicating the commencement of suppuration, and then we should have had the disease go on in this way; but instead of which, you find that one day the report is, the knee is rather better, the pain, less, and she rests better; and then a day or two afterwards, without any obvious reason, the pain is aggravated, and the local disease increased: thus there are frequent changes. This is not the character of actual disease of the ligaments; it does not change thus, unless there be some alteration of constitution from time to time, which will enable you to account for the local changes which take place.

This case has been one of considerable interest; for it has put on so closely the character of ligamentous disease, that although I have been very careful in investigating cases, yet I was deceived in the first instance. I have desired my clinical clerk, Mr. White, to take the patient's address, and he has promised to let me know from time to time how she goes on. She has left the hospital and is going into a purer atmosphere, to reside with her parents. I have directed that she should take while there a small quantity of aloetic medicine —colocynth, aloes and hyoscyamus, as a regular aperient; these pills to be taken every second or third night. Having still hysteria in view, I have given her the compound steel mixture with a small quantity of castor. This she is to take regularly, unless circumstances should forbid its continuance; and I have given her directions to apply to an intelligent medical man in the neighbourhood, who will modify the remedies from time to time, according to the features presented. I think I shall be able to report to you, in a short time, a favourable progress of the case, and also, what is confirmatory of the views I have taken, showing how much the general health first of all, from the peculiarity of hysteria, puts on the semblance of local disease; and again, how much the continuation of health has to do with the continuance of a local affection, whether sympathetic or whether real.

The two following cases afford proof of a further extension of mischief.

One of them occurred in a man named Robert Gifford, a sailor, who has partial anchylosis of the knee-joint. The description he has given us will enable us to decide that he had inflammation affecting the ligaments with the synovial membrane. He describes the pain as very great, the swelling as considerable, and it obliged him to desist from his work and go into the Bermuda hospital. Probably there, by active treatment, the disease was checked, preventing such extension of the suppuration as would have formed an external aperture. But, in consequence of the destruction of ligaments, of the synovial membrane, and of the cartilages, the articular surface became united afterwards by granulations, and then again the granulations were prevented from becoming ossified, by his submitting the part to slight motion. This is an uncommon termination of this disease of the joint, because when suppuration or ulceration occurs, the constitution suffers so much that the patient sinks under it. We have, however, specimens in the museum showing to what an extent the mischief may go. There is one specimen where the cavity of the joint is nearly obliterated, and the condyles and tibia are united by osseous matter. In another there is dislocation of the tibia forwards on the femur, with anchylosis: in this instance, dislocation had taken place in

consequence of ulceration of the ligaments, synovial membrane, and cartilages, and the man's foot had come forward, so that the anterior part of the tibia was at right angles with the thigh, and in such a condition union took place even by ossification.

In the case which I have read there has been a little alteration of position from ulceration. The reason why I say from ulceration is, that the tibia is sunk a little behind the condyles of the femur.

This will be better seen in reference to the case of Samuel Ruffle.

In this instance the case is rather more clear. There has been an injury at an early period of life, inducing perhaps inflammation of the ligaments. He recovers from this by ordinary treatment, but still with a stiff joint, and then by a further application of violence he gets a more severe disease, quickly running from the adhesive to the ulcerative stage. Where the ligaments remain merely affected with a common degree of inflammation, below suppuration, there is little appearance of swelling in the articulation; but as soon as ulceration commences, the swelling immediately becomes great, and there is great disfigurement; the ligaments are soon destroyed by the ulcerative process, and, unless care be taken to support the articular surfaces and they are properly adapted, they become dislocated or separated from one another, so as to produce deformity hardly credible. I have seen many instances of this kind, in which the tibia has been dislocated backwards on the femur, which could not of course take place without destruction of the lateral, the crucial, and posterior ligaments, and the disease extends also to the synovial membrane and cartilages, which become destroyed by the continuation of the process of ulceration.

The extent to which suppuration may take place is very various. Sometimes there is a destruction of the synovial membrane and ligaments, with but little formation of matter, and at other times we find the formation of matter very extensive. In the eleventh case there does not appear to have been any indication of suppuration to much extent, no external aperture is found, and the patient gets rid of the severe form of the disease under rest and counter-irritation. But in the case of Ruffle, the matter forms in the cavity of the joint, then it makes its way by ulceration, and is discharged through the superficial soft parts. At this time, however, the constitution of this patient suffered but little; whereas, most frequently, if there be ulceration to any extent, constitutional irritation is induced, and the symptoms are often most severe, so that the cases which we meet of this kind in large Metropolitan Hospitals, more frequently than not, require the removal of the limb in order to get rid of the source of irritation and to save life. When I admitted this man into the house, from there being an opening in the joint, from there being a partial dislocation of the limb, and the man's health being below par, I was doubtful whether I should not soon have to remove the limb. But he has under attention to the secretions, a good nutritious diet, and a careful attention to his limb, gone on so well that he has quitted the hospital with very little local disease. Except he be disturbed by some febrile disease, we shall get him into a healthy condition, or little short of it. It will be desirable to use passive motion as soon as possible; this will depend on the closure of the wound, which communicates still with the joint: for so long as the wound exists, it would be wrong to use passive motion; we may increase the internal mischief by so doing, but as soon as it is closed, passive motion will be resorted to, and he will get some trifling portion of motion. This case shows the greatest extent of disease compatible with saving the limb.

We have then seen that the joint is liable to be affected in the synovial membrane only; we have seen that it is liable to be affected in the articular extremities of the bones; that the cancellated structure and the ligaments are liable to be affected, more particularly the posterior and the internal lateral ligaments, but that ulceration will go on to the synovial membrane and cartilages, under which they become destroyed; the articular surfaces are done away with, and a new deposit takes place, which unites the osseous extremities of the bone, sometimes by fibrous and sometimes by ossific matter. We have also seen that those cases in which the disease proceeds to an extreme degree rarely do well, in consequence of the difficulty in obtaining constitutional power in an atmosphere so uncongenial as this; but the cases to which I have referred constitute exceptions to the general rule.—*St. Thomas's Hospital Reports.*

The London Medical
AND
Surgical Journal.
Saturday, August 20th, 1836.

A FEW MORE REASONS AGAINST MR. SMITH'S DISPENSARIES.

THE fallacy of the conclusions at which the promoters of the self-supporting Dispensaries arrive, can be in no way better illustrated than in the evidence they themselves adduce in favour of their plans. As stated in our Journal of last week,

at a Dispensary on the self-supporting system which has been established some time in London, patients were admitted, whose income, when single persons, did not exceed 50*l.*; and when married, with four children, 100*l.* Now, it is clear to us, that such an arrangement would include at least nine tenths of the artisans and mechanics of this metropolis; besides, it was not stated by the Secretary of this Dispensary, what was the maximum of the income of patients with one, two, or three children, but we suppose they are included in the 100*l.* lot. However this may be, leaving out entirely the utter impossibility of accurately arriving at the knowledge of the exact amount of a man's wages, we say that it is monstrous for a person in the receipt of two pounds weekly, to be a charity-patient, or worse, an *independent patient,* paying at the rate of four shillings and four pence yearly!

The benefits of self-supporting Dispensaries to the profession, were attempted to be proved by reference to their funds, and the receipts of the medical officers. For instance, in the Dispensary we have alluded to, "The North-Western," it was stated that the 1,700 members paid the surgeons sufficiently and satisfactorily for their attendance; three of them having received upwards of 100*l.* each as a year's salary. We shall not attempt to question the accuracy of this statement; we are willing to give the promoters of these Dispensaries its full benefit. But what does this statement prove? We say that it proves nothing in support of their argument or their system. Granted that 1,700 persons pay at the rate of 350*l.* per annum for medical attendance, and that three medical men share this between them, you only shew that 1,700 persons are receiving charity, and that three surgeons are lending themselves to a species of degradation, to the injury of their brethren. What! shall it be said such a statement of receipts and payments as we have given, proves anything in favour of the system? It cannot be—but on the contrary, speaks volumes against it. Before it can be asserted that the self-supporting Dispensary system is beneficial to the great mass of the profession, you must not only ascertain the amount of receipts and payments at an institution of this kind, but you must state also the amount that these 1,700 patients, previous to their becoming members of the charity, paid to other medical men yearly, and amongst how many such payments were distributed. This will be the test, and this is the only test upon which the statements of Mr. Smith and his friends can be made valid. We are quite aware of the difficulty of arriving at such a truth; but surely, no one will be bold enough to say, that 1,700 persons would pay only at the rate of four shillings and four pence yearly, and these persons in the receipt of 50*l.*, 80*l.*, and 100*l.*, and in many instances, how much more? Away then with the flimsy conclusion at which Mr. Smith and his party have arrived. Prove that their plan is not a monopoly—prove that the receipts from their subscribers exceed in amount their payments previous to their becoming objects of charity, under the system we have decried—prove these things, and we shall be willing to allow that self-supporting Dispensaries are beneficial to the profession. But you will say, you cannot prove it—that it is impossible it can be proved. Then why assert, as you have asserted, and continue to assert, that the profession will be benefited by your plans? Is it true that Mr. Smith's institution at Southam has driven one professional brother from that place, to seek for practice where the ruinous system had not yet found supporters? If so, and it has been so stated, how can Mr. Smith speak of benefits of Dispensaries on his plan, except that they be to the benefit of the few, as we have said, to the ruin of the many?

APPOINTMENTS IN THE LONDON UNIVERSITY.

Dr. Sharpey, of Edinburgh, is elected to the chair of Anatomy and Physiology, vacant by the resignation of Dr. Quain. Of the talents and acquirements of Dr. Sharpey we know nothing personally, but he bears a high character as an anatomist, we understand, in Edinburgh; how far, however, the Council will serve the interests of the University, by electing this gentleman in preference to such well-known individuals as Dr. Grant, Dr. Lizars, or Mr. Grainger, may meet with a difference of opinion; it may not be out of place to state, that the decision of the Council has given great and general surprise to the profession. It is stated regarding a candidate for the University chair—who, at the time he sent in his proposals, was a leading man in the opposition school—that he has since been under the necessity of resigning that appointment, but is now endeavouring to recall that resignation:—the fable of the "Dog and the Shadow" is not inapplicable here. We believe, however, that the situation which the gentleman in question filled is virtually vacant; at all events, we know that there are some candidates for the appointment.

CHARGE OF MEDICAL MEN FOR ATTENDANCE.

At Stafford, during the present Assizes, a general practitioner of the name of *Morgan*, brought an action against the executors of a lady, whom he had attended during the last six years of her life. His bill amounted to 204*l.* 16*s.* 6*d.*, of which 108*l.* was for attendances, and 96*l.* 16*s.* 6*d.* for medicines. The defendants had paid into court 124*l.* 10*s.*, and resisted payment of the full demand, on the ground that the plaintiff being a surgeon and apothecary, had no right to charge for his attendances, but only for the medicines. After some pleading on both sides of the question, in which Mr. C. Phillips for the defendant, endeavoured to degrade the profession, and Mr. Justice Littledale was inclined to believe, that *according to law*, the surgeon-apothecary could not recover for attendances, notwithstanding the decision of Lord Tenterden, in the case of Handey *v.* Henson—the jury found for the plaintiff to the full amount, subject to the question of law.

Hospital Reports.

NORTH LONDON HOSPITAL.

Extensive Burn.

James Buttery, aged 12, was admitted June 21st, under the care of Mr. Cooper. On the 18th instant his shirt caught fire, and before the flames were extinguished, he was severely burnt on his left side, from the axilla down to the crest of the ileum, extending forward on the thorax, and backwards to the spine and nates. His mother applied linseed oil and flour, till the following morning, when a surgeon who saw him, ordered scraped potato to be applied, and gave him some opening medicine. In the parts most burnt the skin is entirely destroyed, and around for some extent there is considerable inflammation. Versication has existed in some parts, and there is now considerable discharge from the greater part of the burnt surface. There is much disturbance of the system; dry skin, quick pulse, furred tongue, and thirst. The boy was placed naked in bed, and the parts well covered with flour, by means of a dredging-box. He expressed himself relieved by this application. He was ordered

℞. Liq. opii. sed gutt. xv;
Liq. amm. acet. ℥ ss;
Mist. camphoræ, ℥ i.
Fr. H. hora somni sumend.

June 22nd. Has slept pretty well during the night. Bowels open twice this morning; free from pain; skin hot and dry; tongue white; thirst; pulse quick; parts discharge. Flour again applied.

℞. Morphiæ. muriat. gr. i;
Vin. antimon. tart. ℥ ij;
Liq. am. acet. ℥ i;
Aq. destill. ℥ vi; cret. ij 3 tis horis.

23rd. Slept at intervals; during the night discharge increased from the parts; very thirsty; pulse less frequent. Ordered milk and beef-tea.

24th. Slept well; bowels costive.
Ol. ricini, ℥ ss. statim.

25th. A very restless night. Bowels open; discharge increased; pulse 90—which is less than it was.

27th. Discharge still increased. Water-dressing to be applied, and the hardened flour to be removed. Tongue moist; skin cooler; bowels open. Ordered a chop, and half a pint of porter.

30th. Less fever; pulse 80; cicatrization going on rapidly, and the whole surface of the sore presents a healthy granulating surface. The granulations were touched with the following lotion.

℞. Argent. nit. gr. i;
Aq. destill. ℥i.

The other parts to be drest with red wash.

July 4th. Going on well. Eats, drinks, and sleeps well. The sore is rapidly healing. Continue the red wash.

12th. Has continued to improve since last report. The wound has healed very favourably, and he was discharged this day well.

Rupia—Secondary Syphilis.

Thomas H——, shoemaker, aged 34, was admitted June 7th, under the care of Mr. Cooper. Two and a half years ago, had sores on the body of the penis, and gonorrhœa; for these complaints he became an in-patient at a London Hospital, where he remained for five months, taking mercury and sarsaparilla. During the period he had erysipelas; at the expiration of the five months he was discharged cured; but a week after his dismissal he had pains in his shin-bones and elbows, for which he was again admitted into the hospital, where he remained five months longer; during which time he took sarsaparilla only. A short time after he left the hospital, he broke out in blotches and sores, and had severe pains in his bones, for which he was again admitted for three months longer. Since that time his complaint has been aggravated by poverty, &c. His teeth have never been loose.

The face is at present completely covered with an eruption, which Mr. Cooper thinks is of the venereal tuberculated form. There are extensive crops of rupiæ affecting principally the right arm and shoulder, and several large copper-coloured blotches in different parts of his body. His general health is tolerably good. Bowels open. Full diet.

℞. Solut. hydr. potass *m.* xx;
Decoct. sarsæ, ℥is. ter in die sumend.

13th. Eruption of the face improving; crusts on his arms exfoliating.

Auge dos. hyd. pottass. ad minim xxx.

20th. Still improving; pains in his shin bones gone.

Auge dos. hyd. pot. ad m. lx.

Eruption of the face gone. Eruptions in other parts of his body nearly well. General health much improved; dicharged.

Case of Cæsarean Operation performed three times successfully on the same Individual.
By Dr. Michaelis of Kiel.

The patient was born in 1795, and during her childhood suffered from rickets to such a degree that she could scarcely walk alone till twelve years of age. The lower extremities, the spine, and pelvis, were much distorted. Her height is four feet three inches*; the trunk is disproportionately long. On examination per vaginam, the antero-posterior diameter, from the lower edge of the symphisis pubis to the promontory is about two and a half inches; from the upper edge of the symphisis pubis to the promontary it is about two inches; the sacrum is nearly straight. Her first pregnancy was perfectly natural; the first pains having made their appearance, at the end of forty weeks, on the 16th of June, 1826. The os uteri dilated, and the membranes ruptured during the night. The Cæsarean operation was determined on the evening of the following day by the two medical men who had been summoned, but, as the necessary preparations could not be made immediately, it was deferred till the morning of the 18th; twelve leeches were applied to the lower part of the abdomen the night before, and some emulsion with nitre given to allay a feverish attack.

First operation. On the morning of the 18th June, she was placed on a table nearly horizontally, on account of the abdomen being very pendulous. Dr. Seidel applied a napkin dipped in oil around the spot selected for the incision, and pressed the uterus, which was much inclined to one side, into the median line of the body, where he held it firm. The incision commenced in the linea alba, two inches below the umbilicus, and terminated two inches above the symphisis pubis. The divided integuments instantly separated a hand's breadth from each other. As the tension of the abdominal parietes was still so considerable as to prevent the finger being introduced, the peritoneum was divided by passing a director beneath, and cutting it with a blunt-ended bistoury. As soon as this was effected, Dr. Seidel pressed back some convolutions of intestine which had protruded on both sides, so quickly that they produced no interruption to the operation.

When the uterine parietes were divided, the external wound required further dilatation before the child could be extracted. As the uterus contracted strongly, the placenta was immediately separated and brought away. A considerable hæmorrhage from the edges of the uterus followed: cold water was poured upon it from a height; firm contraction followed, and the hæmorrhage

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* These numbers have been reduced to the English measure.

ceased. The child had been evidently dead some time. The lips of the wound came into such exact apposition that the suture was not deemed necessary, and they were merely held together with long strips of adhesive plaster; charpie and a common bandage completed the rest of the dressing, and the patient, who had been perfectly quiet during the whole operation, was placed in bed upon her back. A little cool drink was given her; a mixture of Decoct. altheæ, Potass. nitras, and Ol. olivæ, was ordered, and at night she took a grain of acetate of morphium. Pulse 120, small and hard. The night passed tranquilly; she slept well, slight perspiration, much

19th June. Feverish during the night. Urine passed without the catheter. The bowels not being open, she took every hour a tablespoonful of the following mixture: ℞. Decoct. Altheæ, ℥ vj.; Ol. Amygd. dulc. Syrup. Rhæi, aa ℥ j. M.

21st June. Bowels have been moved seven times: pain in abdomen diminished: no fever. Half a grain of morphium was given several times daily until the 29th: she took in all one scruple.

23rd June. The dressings were undone: the wound had united to the extent of three inches. The edges of the lower portion were not united, and were again brought together by fresh strips of adhesive plaster.

25th June. Felt very well: appetite good. Took Decoct. cinchonæ with camphor, and had some broth.

The only inconvenience of which the patient complained, and which continued to annoy her to the end of the month, was a scalding in passing water, which frequently produced retention of urine, requiring the catheter. An enema was necessary almost daily to procure the necessary relief of the bowels. The lochia were regularly secreted; the milk was sparing.

In the course of three weeks the wound was completely closed and cicatrized. On the 4th of July she sat up for the first time, and on the 10th she left her bed. The cicatrix was about the breadth of a finger; the abdomen was rather pendulous, and required a bandage. The catamenia returned in eight weeks after the operation.

Dr. Zwanck, the operator, attributed much of his success, and the remarkable absence of unfavourable symptoms, to the dressing having been made without suture, and to the free use of morphium.

Second pregnancy. She menstruated for the last time on the 13th April, 1829. She quickened towards the end of August. She enjoyed good health during her pregnancy, except that the abdomen, being pendulous, hindered her somewhat in walking.

She was admitted into the Lying-in-Hospital at Kiel, in December, 1829. External examination showed a strongly-marked pendulous belly: this was evidently produced by actual dilatation of the uterus, and great distention of the abdominal parietes in the immediate vicinity. The cicatrix had now extended to the length of nine inches; it was four inches broad. The fundus uteri was high above the umbilicus; the distance of the umbilicus from the pubis was full fourteen inches, (fifteen English); whereas, in her first confinement, it was stated to be eight and a half, (nine English). The uterus appeared to be in close contact with the abdominal parietes, and at the lower part of the cicatrix was evidently united with them for the space of an inch and a half.

In the beginning of January, 1830, she frequently complained of great distention of the abdominal integuments, at the lower part; the veins in the cicatrix were much dilated; and the little scars, where the leeches had bitten in her last pregnancy, now partially opened, and once during the night bled considerably.

Second operation. Pains commenced between the 20th and 21st of January. On the morning of the 21st the os uteri was scarcely at all dilated; an extremity could be felt through the vagina. By half-past four, P.M. the os uteri was dilated about three fingers' breadth; the pains were strong, and membranes tense. As an extremity presented, and would necessarily prolapse in all probability with the cord, as soon as the membranes ruptured, it became no longer safe to delay the operation. Having therefore evacuated the bladder and rectum, it was commenced by the celebrated Wiedemann, of Kiel, in the presence of Professors Lüder and Deckmann, Dr. Michaelis, and several students. The two latter gentlemen supported the abdominal integuments with their hands. The incision, six inches in length, was made on the left side in the cicatrix, about an inch from the median line, where the child was felt most distinctly, commencing at about five inches below the umbilicus, and terminating about three inches from the os pubis. The uterus was then divided layer by layer; a few vessels spouted for a moment. The placenta appeared in the wound, which was dilated full four inches. During a pain the placenta protruded, and occupied the opening. To separate the placenta on the right side, rupture the membranes, and extract the child (which had presented with a thigh) as far as the head, was the work of a few seconds. A powerful contraction of the uterus now retained the head for a few moments, and the child's life appeared in considerable danger: gentle traction soon released it, and the placenta followed. The operation lasted barely five minutes. The child, a girl, soon cried briskly, and the uterus contracted well.

The wound of the integuments was secured by three sutures, made after Grafe's plan, and supported with strips of adhesive plaster, and a small seton placed in the lower end. The patient, who had borne the whole operation without a murmur, complained of great pain in making the suture, and was very impatient.

After the operation the pulse was very slow and hard: her appearance was unchanged. On account of severe pains in the abdomen, (apparently after pains) twenty drops of Sp. Ætheris comp. and eighteen of Træ. Opii were given. She continually demanded morphium, which was not given. At eleven in the evening, as the pains were unabated, she had one grain of opium; at three-quarters past twelve she fell asleep, but was very restless from the after-pains.

Considering all circumstances, her recovery was favourable, so that, on the 21st February she was up for some time, and felt quite well. By the beginning of March the wound was entirely cicatrised, except a place or two in the skin. On careful examination a fistulous opening was discovered, from which a little mucus could be squeezed. A probe which was introduced caused repeated bleeding, and at length penetrated downwards more than an inch into the uterus, which had become firmly united with the abdominal integuments. Injections into the fistula passed away immediately by the vagina, and a small quantity of muco-purulent fluid was constantly discharged from this passage. This fistulous canal resisted all attempts to make it heal until the patient left the hospital.

The union of the uterus with the abdominal integuments had so much increased this time, that when the organ was fully contracted, it occupied a space of at least an inch and a half, and consisted therefore of its entire anterior surface. The child died on the 19th of February, of induration of the cellular tissue.

Third Pregnancy. The catamenia appeared in the course of a few weeks after her return, and the fistulous opening healed shortly afterwards of itself. In the middle of June, 1831, the catamenia appeared for the last time; and, at the beginning of March, 1832, she was again admitted into the Lying-in-Hospital of Kiel. Her pregnancy had passed over without any peculiar inconvenience.

Early on the 28th March pains made their appearance: by ten the same evening the os uteri was transversely dilated to the extent of three fingers' breadth, and the membranes were very tense during a pain. The head could be distinctly felt above the pubis. The patient looked forward with confidence to the operation, but forbade most expressly the suture being made this time with Grafe's large needle.

Third operation. Having evacuated the bladder and rectum, Dr. Michaelis commenced the operation in the presence of Professors Weidemann and Deckmann, &c.; the latter supported the abdominal parietes. The spot selected for the incision was to the left of the second cicatrix, where the child could be felt most distinctly. It was made about five inches long, in an oblique direction from above and outwards, downwards and inwards. On enlarging the incision into the uterus with a blunt-pointed bistoury, the liquor amnii escaped. An elbow presented, close behind which was the left knee: this lotter was brought out: as, howewer, the nates did not follow gentle traction, the opening was dilated somewhat, and the child was extracted without difficulty. It was a boy, and cried immediately. The placenta was quickly separated, and brought away. Till this moment no fluid had escaped into the abdominal cavity, but now, as the uterus contracted imperfectly, a stream of blood issued from the wound: this was soon stopped by pouring water from a considerable height above it. No convolution of intestine protruded. The pulse was slow, not small. Some wine and Tinct. Opii were given her.

The healing of the wound advanced regularly until the 16th of May: there were some little places which had not cicatrized over, but these were quite closed in a few days more. On the 25th of May, Dr. Michaelis discovered another small opening in the lower third of the wound, leading through a fistulous canal into the uterus, which was firmly united to the abdominal integuments.

27th of May, the patient left the hospital with her child in perfect health. News was received of their good health on the 10th of June, and that the fistulous opening had healed. The child died sometime afterward of scarlet fever.—*Neue Zeitschrift für Geburtskunde*, B. iii. H. 3.

AN ACT

TO PROVIDE FOR THE

ATTENDANCE AND REMUNERATION

OF

MEDICAL WITNESSES AT CORONERS' INQUESTS.

[The profession is much indebted to Mr. Wakley for obtaining the following Act, which received the Royal Assent on Wednesday, August 17th. We entertain no doubt but that gentleman will lend his aid in the great Act for Medical Reform, during the next Session of Parliament.—Ed.]

Summoning of Medical Witnesses.

I. Whereas it is expedient to provide for

the attendance of Medical Witnesses at Coroners' Inquests, also Remuneration for such attendance, and for the performance of Post-mortem Examinations at such Inquests. Be it therefore enacted, by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that from and after the passing of this Act, whenever upon the summoning or holding of any coroner's inquest it shall appear to the coroner that the deceased person was attended at his death, or during his last illness, by any legally qualified medical practitioner, it shall be lawful for the coroner to issue his order, in the form marked (A) in the Schedule hereunto annexed, for the attendance of such practitioner as a witness at such inquest; and if it shall appear to the coroner that the deceased person was not attended, at or immediately before his death, by any legally qualified medical practitioner, it shall be lawful for the coroner to issue such order for the attendance of any legally qualified medical practitioner, being at the time in actual practice in or near the place where the death has happened; and it shall be lawful for the coroner, either in his order for the attendance of the medical witness, or at any time between the issuing of such order and the termination of the inquest, to direct the performance of a post-mortem examination, with or without an analysis of the contents of the stomach or intestines, by the medical witness or witnesses who may be summoned to attend at any inquest; provided that if any person shall state upon oath before the coroner that in his or her belief the death of the deceased individual was caused partly or entirely by the improper or negligent treatment of any medical practitioner or other person, such medical practitioner or other person shall not be allowed to perform or assist at the post-mortem examination of the deceased.

Additional Medical Evidence if the first be not satisfactory.

II. And be it further enacted, That whenever it shall appear to the greater number of the jurymen sitting at any coroner's inquest, that the cause of death has not been satisfactorily explained by the evidence of the medical practitioner or other witness or witnesses who may be examined in the first instance, such greater number of the jurymen are hereby authorized and empowered to name to the coroner, in writing, any other legally qualified medical practitioner or practitioners, and to require the coroner to issue his order, in the form hereinbefore-mentioned, for the attendance of such last-mentioned medical practitioner or practitioners as a witness or witnesses, and for the performance of a post-mortem examination, with or without an analysis of the contents of the stomach, or intestines, whether such an examination has been performed before or not; and if the coroner, having been thereunto required, shall refuse to issue such order, he shall be deemed guilty of a misdemeanor, and shall be punishable in like manner as if the same were a misdemeanor at common law.

Fees to Medical Witnesses and Funds for their Payment.

III. And be it further enacted, That when any legally qualified medical practitioner has attended upon any coroner's inquest in obedience to any such order as aforesaid of the coroner, the said practitioner shall for such attendance at any inquest in Great Britain be entitled to receive such remuneration or fee as is mentioned in the table marked (B.) in the Schedule hereunto annexed; and for any inquest held in Ireland, the said practitioner shall be paid in the manner provided by the laws in force in that part of the United Kingdom; and the coroner is hereby required and commanded to make, according to the form marked (C.) in the Schedule hereunto annexed, his order for the payment of such remuneration or fee, when the inquest shall be held in Great Britain, and such order may be addressed and directed to the churchwardens and overseers of the parish or place in which the death has happened; and such churchwardens and overseers, or any one of them, is and are hereby required and commanded to pay the sum of money mentioned in such order of the coroner, to the medical witness therein mentioned, out of the funds collected for the relief of the poor of the said place.

Fee not payable for a post-mortem Examination instituted without Order from the Coroner.

IV. Provided nevertheless, and be it further enacted, That no order of payment shall be given, or fee or remuneration paid, to any medical practitioner for the performance of any post-mortem examination which may be instituted without the previous direction of the coroner.

Inquests on Bodies of Persons dying in public Institutions.

V. Provided also, and be it further enacted, That when any inquest shall be holden on the body of any person who has died in any public hospital or infirmary, or in any building or place belonging thereto, or used for the reception of the patients thereof, or who has died in any county or other lunatic asylum, or in any public infirmary or other public medical institution, whether the same be supported by endowments or by voluntary subscriptions, then and in such case nothing herein contained shall be construed to entitle the medical officer whose duty it may have been to

attend the deceased person as a medical officer of such institution as aforesaid, to the fees or remuneration herein provided.

Penalty for neglecting to attend.

VI. And be it further enacted, That where any order for the attendance of any medical practitioner as aforesaid shall have been personally served upon such practitioner, or where any such order not personally served shall have been received by any medical practitioner in sufficient time for him to have obeyed such order, or where any such order has been served at the residence of any medical practitioner; and in every case where any medical practitioner has not obeyed such order, he shall for such neglect or disobedience forfeit the sum of five pounds sterling, upon complaint thereof made by the coroner or any two of the jury before any two justices having jurisdiction in the parish or place where the inquest under which the order issued was held, or in the parish where such medical practitioner resides; and such two justices are hereby required, upon such complaint, to proceed to the hearing and adjudication of such complaint, and if such medical practitioner shall not show to the said justices a good and sufficient cause for not having obeyed such order, to enforce the said penalty by distress and sale of the offender's goods, as they are empowered to proceed by an act of parliament for any other penalty or forfeiture.

Act not to extend to Scotland.

VII. And be it enacted, That nothing in this act contained shall extend to Scotland.

SCHEDULE TO WHICH THIS ACT REFERS.

(A.) *Form of Summons.*

Coroner's inquest at , upon the body of

By virtue of this, my order, as coroner for , you are required to appear before me and the Jury at , on the day of 18 , at o'Clock, to give evidence touching the cause of death of , [*and then add, when the witness is required to make or assist at a post-mortem examination*], and make or assist in making a post-mortem examination of the body, with [*or* without] an analysis, [*as the case may be,*] and report thereon at the said inquest.

(Signed) Coroner.

To , Surgeon, [*or* M. D., *as the case may be.*]

(B.) *Table of Fees.*

1. To every legally qualified medical practitioner for attending to give evidence under the provisions of this act, at any coroner's inquest, whereat no post-mortem examination has been made by such practitioner, the fee or remuneration shall be one guinea.
2. For the making of a post-mortem examination of the body of the deceased, either with or without an analysis of the contents of the stomach or intestines, and for attending to give evidence thereon, the fee or remuneration shall be two guineas.

(C.) *Coroner's Order for the payment of Medical Witnesses.*

By virtue of an Act of Parliament passed in session of holden in the , intituled , I, the coroner of or for , do order you, the overseers of the parish [*or* township, *as the case may be*], to pay to the sum of [one guinea, *or* two guineas, *as the case may be*], being the fee [*or* fees] due to him for having attended as a medical witness at an inquest holden before me this day of , upon the body of , about the age of , who was found dead at , [*or other particulars or description*], and at which said inquest the jury returned a verdict of .

(Signed) Coroner.

Witnessed by me, of .

To the Overseers, &c. &c.

BOOKS.

The Practical Anatomy and Elementary Physiology of the Nervous System, designed for the use of Students in the Dissecting Room. By F. le Gros Clark, Demonstrator of Anatomy in St. Thomas's Hospital, 8vo. pp. 367. London, Longman & Co.

In the Press, an Introduction to Medical Botany, 3rd edition. By T. Castle, M. D. F.L.S.

British Flora Medica; Part V. By B. H. Barton, F.L.S., and T. Castle, M.D. F.L.S.

CORRESPONDENTS.

A Letter about an Examiner of Apothecaries' Halls is too personal, and, we consider, unjust. We do not know the individual complained of, but, in our opinion, the grounds are frivolous.

A Reformer.—Nothing can be done this Session.

A Defender of Self-Supporting Dispensaries is a feeble advocate, and we decline his communication, as it would lead to useless controversy. He must be well aware that few of our readers are interested in the subject.

A Friend.—We hope to be able to announce it in our next.

A Medical Student, J. H. S. C.—The fee is 20*l.* lower than elsewhere.

THE

London Medical and Surgical Journal.

No. 31. SATURDAY, AUGUST 27. Vol. I.—(1836).

AN ABSTRACT OF ORIGINAL VIEWS ON THE FUNCTIONS AND DISEASES OF THE INTESTINAL CANAL; WITH

An Examination of such Objections as have been urged against them; and a further Report of their successful practical Application.

By James O'Beirne, M. D.

Surgeon Extraordinary to the King; one of the Surgeons to the Richmond Surgical Hospital, &c. Dublin.

(*Read at the Medical Section of the British Association, 14th August*, 1835).

(Concluded from p. 929.)

Having gone through my views respecting the ilio-cœcal valve and the sigmoid flexure, I now come to the consideration of those which regard the rectum. These are the only parts of my doctrines which have encountered opposition; and the objections raised against them, come chiefly from one high and influential quarter, and are neither few nor unimposing. I am compelled, therefore, to treat this portion of the subject at much greater length.

Rectum.—Contrary to what is observed in the dead body, and to all the opinions which have ever been held respecting the healthy functions and state of this intestine, I have shown—

First, That all that portion of the rectum included between the top of its pouch and the termination of the colon, and varying from six to eight inches in length, is firmly contracted and empty during the whole of that period which elapses from one complete evacuation to a few moments previous to another taking place.

Secondly, That during this period, be it long or short, the pouch of the rectum alone contains excrement, but only in very small quantity, and in the form of pellets.

Thirdly, That the pouch of the rectum is always in a dilated or open state.

Fourthly, That it is to the muscular power of the contracted portion of the rectum, and not to that of the sphincter muscles of the anus, man owes the power of retaining and discharging, at will, the contents of the bowels.

Fifthly, That the upper extremity or annulus of this contracted portion alone, and not the sphincter ani muscles, receives and resists the impulse of the diaphragm and abdominal muscles in the act of respiration; supports the weight and volume of the contents of the sigmoid flexure of the colon; resists their descent, and is peculiarly exposed to such irritation as they are capable of exciting.

Sixthly, That, in consequence of performing such offices, the few muscular fibres immediately composing this upper annulus, acquire much greater irritability and contractile power than those of the inferior portion of the contracted rectum.

Seventhly, That this upper annulus must be overcome by the combined action of the diaphragm and abdominal muscles, at each time that the contents of the sigmoid flexure of the colon have to pass into the rectum.

Eighthly, That the rectum is never filled until a few moments before an excretion takes place, and that when it is sufficiently filled, it contracts upon its contents, urges them through the anus, and out of the body.

Ninthly, That it is only in this, the last stage of the process of excretion, that the sphincter ani muscles, by further retarding the evacuation of the alvine contents, can be said to assist in the process of defecation.

Tenthly, That as soon as this process is completed, the rectum returns to its former state of impervious contraction; the sphincters close the anus; and, (as Doctor Elliotson has since correctly added,) "the levator ani muscles raise the bowel into its natural situation."

The grounds upon which I have endeavoured to establish these views, appear to be of the most convincing nature, and may be classed under the three following heads, viz. first, facts and arguments drawn from pathology and physiology, and showing that the old doctrines respecting the natural

function and state of the rectum, must be false, and tending most strongly to prove the truth of the new; secondly, facts presented by the organization of the rectum, proving that this intestine cannot have any other action, or be in any other state, than those just described: thirdly, experiments made by myself, frequently and carefully, showing that such actually are the action and condition of the bowel in question. These various kinds of proofs shall now be briefly stated and then examined into, in connexion with their respective objections, and in such an order and manner as will enable the reader to see at once both sides of the subject, and on which side truth lies. He will thus, also, be enabled to see the precise extent and nature of those objections.

Anatomical proofs.—I have shown that the rectum is at once the most muscular portion of the intestinal canal, and the only portion of that canal which receives nerves directly from the spinal marrow; a source in which the highest order of motific and sensific influence is found to reside; that the obvious design of this organization can be no other than to enable this intestine to contract with great force; that in four-fifths of its extent, it has no muscle inserted into it, to oppose its contraction; and that the remaining portion, forming the pouch, is necessarily open in consequence of having inserted into it the middle and posterior divisions of the levator ani muscles, which are much more powerful.

These facts and conclusions constitute the very groundwork of all my views of the rectum; and may be considered as generally admitted, for no one has attempted to assail them. Yet, strange to say, it will be found that their weight has been wholly overlooked by all objectors, in their examination of the experimental and pathological proofs adduced in confirmation of those drawn from the anatomy of the rectum, and the physiology of the spinal marrow.

Experimental proofs.—In exploring the state of the rectum in a considerable number of healthy persons, by passing a gum-elastic tube into the sigmoid flexure, and by repeating its introduction, in each of these persons, at different times in the same day, I have found that the passage of the instrument was more or less opposed until it reached the upper extremity of the rectum; that there was a very sensible increase of opposition at this point; that on this opposition being overcome, the point of the tube passed rapidly upwards, as if through a ring more or less tight; that instantly, and for the first time, flatus or fluid feces, or both, rushed through the tube; that such portion of the instrument as had passed beyond this narrow ring, could be moved about with great freedom; and that, on withdrawing the instrument, this was the only portion of it found soiled by, or coated with fecal matter. In this way, also, and sometimes by employing the finger, I have examined the rectum of healthy persons when they felt a moderate inclination to go to stool, and soon after they had passed one; and have ascertained the rectum to be, at both periods, empty and contracted.

These proofs have been resisted on two distinct grounds which I shall now examine.

Mr. Salmon, of London, objects to the mode adopted in making the experiments, and asserts that it supplies "any thing but a conclusive or scientific exploration of the part.*" He argues that a straight, though elastic, tube, not a third of the size of the calibre of the bowel, will meet with resistance at each of the curves of the rectum; whereas "the introduction of a bougie which assimilates to the natural calibre of the bowel, will at all times dilate the intestine without difficulty or pain.†" But in my reply to this gentleman,‡ I have shown that, as the rectum is contracted even to obliteration of its cavity, the size of the tube which I employed, necessarily exceeded the calibre of the bowel. Upon that occasion, also, I pointed out the fact, that the tube by being grasped by the muscular coats of the bowel, is compelled to move in the axis of the gut, and in no other direction; and consequently that a flexible tube, though straight, will follow the exact direction of the intestine, only receive resistance from its muscular parietes, and thus enable us to obtain an accurate knowledge of the condition of its cavity. But I omitted to advance another argument, although a very obvious and strong one, in favour of selecting a gum elastic tube in preference to a bougie. It is this: That some of the objects which these experiments were meant to ascertain, such as those of determining whether or not flatus is always contained in the rectum; and, if not, at what higher point, in what manner and for how long, it is locked up, and its descent into the rectum prevented, were all manifestly of such a nature, that none of them could possibly have been ascertained by the introduction of a solid instrument. In my mind, these facts and arguments completely refute Mr. Salmon's objections, and prove that the experiments in question were conducted in a proper manner, and on solid principles.

The other ground of opposition to these experiments, respects their results; and has proved a fruitful source of imposing but short-sighted objections. That this is really the case I should now proceed to prove; but, as the results in dispute are so materially supported by, and so inseparably con-

* London Medical and Surgical Journal Vol. 3. p. 377.

† London Medical and Surgical Journal Vol 3, p. 377.

‡ Ibid. Vol. 4. p. 118.

nected with, certain pathological facts which are soon to come under discussion, I should be only treating the subject imperfectly and in fragments, and not in that full, connected, and convincing manner which its actual state demands, if I did not defer its consideration until I shall have fully examined and established those pathological facts.

Pathological proofs.—These are advanced in six paragraphs, each containing a number of facts and arguments.

First pararagraph, p. 3.—"It is universally admitted, and it has been shown, that a design to retard the progress of fecal matter, and to convert the large intestines into a depot for its reception, is obvious throughout the intestinal canal, particularly in the cecum and colon; and it must be manifest that, if a free communication existed between the sigmoid flexure and the rectum, that design would fail to be accomplished at the point, of all others, at which it was most necessary to have secured its objects; for such an arrangement would necessarily expose the rectum to frequent accumulations, and such as, besides interfering with the ordinary functions of the bladder, would subject the sphincter ani to continued irritation, and thus deprive man of the important advantage he enjoys of retaining the alvine contents not only for hours but for days, without suffering any inconvenience whatever.

No objection has been raised against either the facts or arguments contained in this paragraph.

Second paragraph, p. 4.—"The circumstance of nature forming one of her chief depots for excremental matter in a part of the intestinal canal so close to, and continuous with the rectum, as the sigmoid flexure is, appears altogether inconsistent with the idea of a free passage between these portions of the canal."

The same may be said of this, as of the preceding paragraph.

Third paragraph, p. 4.—"In the act of receiving an enema, every person is sensible of a considerable degree of opposition to the ascent of the fluid in the rectum. It is well known, also, to those in the habit of administering injections per anum, that, although the syringe may be in the best order, properly filled, and its pipe fairly inserted up the rectum, considerable force is generally required to discharge the fluid, from the resistance given to its passage upwards. These facts would lead us to infer that the rectum, so far from being open, is firmly contracted and closed."

In commenting on this paragraph a writer in the Medico-Chirurgical Journal says, "we appeal to universal experience, whether this difficulty in throwing up enemata be not the exception, rather than the general rule. Excepting in morbid irritability of the bowels, or accumulations in the rectum or sigmoid flexure, we rarely experience any difficulty in throwing up fluids, after the pipe has fairly passed the sphincter ani. We confess, therefore, that this attempt to strain an exception into a general rule, in order to support a theory, has thrown us a little on our guard, in this early stage of the examination on which we are entering. At the same time, we do not deny that the natural state of the rectum, as of all hollow muscular tubes or pouches, is contraction till distended by their natural contents. Is not the bladder in a state of contraction, till distended by the urine from the kidneys?" &c. We have here a grave and broadly made charge. But, without going further, the very terms in which it is advanced will amply suffice to give it a complete refutal. Thus, we see that this gentleman admits the difficulty in throwing up enemata to exist in cases of "morbid irritability of the bowel," and which constitute a considerable number of those in which enemata are used. But, above all, he admits the same difficulty to exist in cases of "accumulations in the sigmoid flexure," a class which, as we now know, comprises more than nineteen-twentieths of all the instances in which enemata are employed. Even upon his own showing, therefore, it is manifest that I have not argued from exceptions, but upon a general rule; and consequently that there was not, on this account, any ground whatever either for accusation or distrust. Again, we see that while he fully admits the natural state of the rectum to be that of contraction, he denies that the intestine, so contracted, can give resistance to the ascent of fluids injected into it through the common short pipe. In my mind, such a denial involves something like an inconsistency. Be this as it may, the other line of argument which I have just used is unanswerable. Yet, I should be uncandid if I did not acknowledge that the paragraph in question might have been worded more precisely in accordance with the facts which I had previously ascertained. Let me explain; seeing that the common mode of giving an enema, had been so generally left to either apothecaries or nurses, I administered enemata to a great number of persons of all ages, and states of health, in order to obtain more accurate information respecting the circumstances attending their exhibition; and the following are the results of my observations and inquiries. In robust persons, the rectum contracts with great vigour, and hence it is that constipation is so ordinary an attendant on rude health. In such persons, the difficulty of dicharging the syringe, and the sensation of resistance to the ascent of the injected fluids, are much greater than in all other descriptions of persons. In very weakly persons, for an opposite and equally obvious reason, the contrary is so much the

fact, that little or none of this difficulty or sensation is experienced. And, in persons of states of health ranging between those extremes, there are various differences in these respects. It follows, therefore, that the paragraph under consideration should have commenced thus: "In the act of receiving an enema, most persons are sensible of more or less of opposition to the ascent of the fluid in the rectum." The same reserve should also have been observed throughout, and the words "more or less of force" substituted for "considerable force." But even with this correction, the paragraph loses nothing whatever of its intended force. At best, however, it contains only a very minor proof, yet one not to be neglected in the general argument.

Fourth paragraph, p. 4, 5. "Surgeons find it necessary to pass a finger up the rectum either to direct the course of a catheter, sound, or staff, to discover whether a fistula communicates or not with the bowel; to detect the presence of a calculus in the bladder, or a stricture in the intestine itself; to ascertain the state of the prostate gland, and for various other purposes; and yet it is a fact that it has exceedingly rarely happened that on any of those occasions the finger has encountered either solid or fluid feces in the rectum, or presented a soiled appearance when withdrawn. It is also a fact familiar to apothecaries and nurses, that the pipe of the injecting syringe, however long it may be, is rarely, if ever, found soiled with fecal matter when withdrawn after administering an enema. These circumstances show that the rectum is contracted and closed so as prevent free communication between it and the sigmoid flexure."

Upon this paragraph the same reviewer makes comments, which I shall extract and analyse sententiatim.

"The fourth proposition," he says, "is ingenious. Every practitioner well knows that, generally speaking, when operations are performed on the bladder or rectum, the bowels are previoulsy cleared by an aperient or a lavement; and so far the author is correct, when he says that the finger rarely encounters solid or fluid feces in the rectum." I am here plainly charged with as shallow an attempt at imposition as can well be imagined. But how stand the facts? Just thus: That the only operations on the bladder or rectum, which require previous clearing of the bowels, are cutting operations; that on this very account no cutting operations on these parts are mentioned in this paragraph; and that, on no one of the numerous occasions mentioned in this paragraph, is it the practice to defer examinations per anum until the bowels have been previously cleared; but that, on the contrary, the universal practice is to at once introduce the finger into the rectum. No surgeon of any country, or of any experience, will venture to deny this to be the true state of the facts. It is manifest, therefore, that examinations of the rectum made on the occasions which I have specified, afford unobjectionable means of ascertaining the presence or absence of excrement in that intestine; and that, so far from being chargeable with any attempt at imposition, I have put the facts with the utmost fairness and caution.

This gentleman next goes on to say, "but if this preliminary caution (clearing the bowels) is not used, we venture to assert that the finger will very frequently come out of the rectum soiled with fecal matters. In fact, we mean to assert that, except after evacuation, natural or artificial, it is almost as common to find feces in the rectum as water in the bladder." This is, indeed, a sweeping assertion, but too little in keeping with his own opinions. For instance, we all know that urine drops almost unceasingly from the ureters into the urinary bladder. It follows, therefore, that if his assertion be true, the rectum should, to speak moderately, almost always contain feces, and the finger should come out of it "soiled with fecal matters," not, as he says, "very frequently," but almost always. Again, such an assertion is altogether and strangely at variance with what he says respecting my experiments, which, be it observed, also consisted in introducing a finger or a tube into the rectum; for, in speaking of the result of these experiments, and which support those deduced from the examinations per anum made by surgeons, he speaks thus: "Should those statements," he says, "be confirmed by the experience of others, they will strengthen very much the views of the author." Here are two cases different in no essential respect, treated in a diametrically opposite manner. It is not, however, in any captious way that I mean to meet such bold assertions. I mean to meet them openly and fairly, but I must defer their consideration until I have disposed of all the facts which bear upon the subject.

Fifth paragraph, p. 5, 6. "Membranous filaments have seldom, if ever, been found traversing in various directions the cavity of either the small intestines, the cœcum, or the colon, while they have often been met with in the rectum. This fact proves that the parietes of the rectum must have been contracted, and its lining membrane in close contact at all points, for a time sufficient to effect the firm organization of these filaments, and, consequently, that there could have been no communication between the intestine and the sigmoid flexure for, at least, several hours."

This paragraph has not been commented upon by any one, but the reviewer in the Medico-Chirurgical Journal, who says, "the

fifth proposition we do not clearly comprehend, and therefore we shall not comment upon it." This is an odd way of disposing of a strong argument, and one so plainly put that no other reviewer, nor, I believe, any other reader of the work, has been unable to comprehend it, or to see its unanswerable bearing.

Sixth paragraph, p. 6. "The two sphincter muscles of the anus are considerably weakened in the disease called prolapsus ani; in the operation for fistula in ano, these muscles are completely divided, and thereby wholly incapacitated, for a certain time, from acting as sphincters; not only these muscles, but also a portion of the rectum above them are occasionally destroyed by venereal, cancerous, and other ulcerative processes; yet it rarely happens that the power of retaining the alvine contents is found to be at all impaired in any one of these cases. It is therefore manifest, that this could not possibly occur if the passage into the rectum were as free as it is supposed to be, or if the power of retaining the feces, and regulating their discharge, depended solely on the sphincter muscles of the anus."

To this paragraph several objections have been raised by reviewers and others. The last mentioned reviewer remarks on it thus: "If Dr. O'Beirne had ever had the misfortune to be cut for a fistula, he would have experienced the disagreeable inability of retaining the feces till the muscle had recovered its power by the healing of the cut. Has Dr. O'B. never seen one of those melancholy cases where the sphincter ani is lacerated in child-birth, and where the inability of retaining feces continues for life? If he has not, we can shew him one whenever he pleases to see it. The reason why, in such cases, the feces are not constantly draining from the rectum appears to be, that they are not constantly, but periodically moving along the line of the colon. Once or twice in the twenty-four hours the feces become accumulated in the colon (chiefly the sigmoid flexure) and the rectum, and then the stimulus of their presence induces both portions of gut to contract and expel them. That they very often stagnate, as it were, in the rectum, is well known to those who are in the habit of examining the vagina of the female. Nothing is more common than to find the rectum loaded with solid feces in such cases." Further on he says, "moreover, in healthy and natural defecation, the whole consists, very frequently, of one long and connected cordon of solid feces." This paragraph is also thus briefly commented upon by the reviewer in the Edinburgh Medical and Surgical Journal. "The sphincter," he says, "in prolapsus ani still acts; and when, in a case of fistula in ano, the sphincter is completely divided, the rectum is so irritable and contracted, as to oppose the passage of feces from the sigmoid flexure. We are not aware that the sphincter and part of the rectum are ever destroyed by venereal ulceration; but, if such were the case, the latter part of the last sentence would account for the retention of the feces. There is no symptom of genuine cancer of the rectum so invariable as inability to retain the feces, which constitutes one of the most painful and loathsome circumstances attending the disease." But Mr. Salmon, in combating the inference which I draw from the effect of completely dividing the sphincter in the operation for fistula in ano, goes the extreme length of asserting, "that the muscle, being circular, its separation at any particular part does not destroy, though it weakens its retentive power*."

Instead of taxing these objections in the order of their insertion, I shall first dispose of the weakest. The Edinburgh Reviewer, in admitting that the sphincter still acts in prolapsus recti, must be in error, for Cruveilhier asserts, and I presume all practical men can attest the truth of the fact, "that he has seen sphincters easily permit the introduction of the hand†." In admitting that, after the sphincters are completely divided in the operation for fistula in ano, "the rectum is so irritable and contracted as to oppose the passage of feces from the sigmoid flexure," he evidently grants me almost all that my cause requires. His doubts that the sphincters and rectum are ever attacked by syphilis, are truly surprising. But if the fact required proof, I would refer him to cases in which Monsieur Lisfranc was lately compelled to excise two inches of the lower extremity of the rectum, in consequence of its being attacked by lues venerea. Neither have his observations on cancer of the rectum the weight or bearing that he would give them; for, in that disease, the patient, although he has an almost constant necessity to void the evacuations, and passes them with the most acute agony, it is not until the advanced stage of the malady, and when the rectum has lost its muscular power, that he passes his stools involuntarily, which, be it remembered, is the point in question. Lastly, Mr. Salmon's assertion, that the action of the sphincters is not destroyed, but merely weakened, after their complete division in the operation for fistula in ano, is as untenable as it is far-fetched. After that operation, the sphincters act, not in an orbicular manner, and so as to close the anus, but by retracting the edges of the divided intestine. The finger can then not only be more easily introduced

* London Medical and Surgical Journal, vol. iv. p. 585.

† Dictionnaire de Medecine et de Chirurgie Pratiques; Art. Anus.

into the anus, but when there, it is no longer tightly embraced as in the first step of the operation; and dressings can be introduced with great ease between the lips of the wound. That division of other sphincters is also followed by loss of their ordinary functions is still more visibly and strikingly exemplified in the operation for hare-lip. In that operation, the moment that the orbicular muscle of the mouth is divided, the edges of the wound separate widely, the prehensile power of the lips is destroyed, and the patient is no longer able to form certain words as usual, or to pronounce others sufficiently distinctly to be understood.

I now come to consider the most specious of all the objections levelled against the facts and inferences contained in the paragraph under discussion. They are contained in the foregoing extract from the Medico-Chirurgical Journal, and regard the consequences of the operation for fistula in ano and laceration of the recto-vaginal septum. I shall examine each of these separately. Speaking, apparently from experience in his own person, he asserts that the operation for fistula in ano is followed by "a disagreeable inability of retaining the feces till the muscle had recovered its power by the healing of the cut." He here clearly means that involuntary stools are the general and common consequence of the operation. Now, although I cannot speak on the matter from experience in my own person, although I cannot undertake to deny that "inability of retaining the feces" may ensue in a case where the operation is performed on a bowel weakened by long continued inflammation, I do not hesitate to assert, in the most positive manner, that such a consequence is one of the most extreme rarity. During twenty-six years I have performed the operation very often: I have seen it still oftener performed by others, and I can conscientiously assert that I have never known it to be followed by any thing like incontinence of feces. I have also consulted several of the most eminent surgeons in this city on the point, and their experience agrees in all respects with mine. Finally, after very considerable research, I find that, out of a great number of writers on the subject of fistula in ano, Jourdan is the only one who has ever alluded to such a consequence of the operation, and that even he describes it as being very rare*. But my statements on this point acquire irresistible weight from a fact which I omitted to adduce in support of my views, and which would have given them the most powerful support, namely, the fact that the sphincters, with a portion of the rectum above them, have been excised by Faget*, Lisfranc†, Mayo‡, and Sterling§, and that incontinence of feces did not supervene in any of these cases; with the exception of the instance related by Faget. But even the history of this case tells decidedly in my favour. It appears that, during more than five months abscesses had formed in succession on the right and left sides of the rectum, and ultimately extended so as to embrace the whole circumference of the intestine, and to separate it from all its natural connections, except at the coccyx and perineum, to which it was merely attached by skin. Under these circumstances, and when the muscular power of the bowel was obviously so much impaired by long continued attacks of inflammation, the operation of excision of an inch and a half of the inferior extremity of the rectum was performed. The patient had no discharge from his bowels on the day of the operation. On the following day diarrhœa came on, continued for ten days, and then ceased. Soon after, the patient recovered, and, it appears, permanently recovered the full and perfect power of retaining his stools. Nay, it appears that he even possessed the power of controlling the escape of flatus per anum. In fact, so complete was his exemption from incontinence either of feces or flatus, that Faget endeavours to account for the occurrence by supposing that the levatores ani had acted as sphincters, and were materially assisted by three cherry-like excresences, which were observed within the circle of the new anus. This case, therefore, is not an exception to those in which no incontinence occurred. On the contrary, it is more strikingly in point, by showing that the incontinence disappeared as soon as the upper part of the rectum had recovered its muscular power. But it is not only in cases of excision of the sphincters, and a still higher portion of the rectum, that this incontinence is absent, for it is also absent in cases where these parts are removed by chronic ulceration. For example, in the case of Robert Childs, admitted into the Richmond Surgical Hospital, in November, 1833, and in whom an inch and a half of the rectum was removed by ulceration, it was clearly ascertained that he enjoyed the full and unimpaired power of retaining his stools. If, then, the removal of some inches of the lower extremity of this bowel, whether by excision or by ulceration, is not followed by incapability of retaining the

* Dictionnaire Des Sciences Medicales, t. xv. p. 527.

* Mémoires de L'Academie Royale de Chirurgie, t. i. Part 2, p. 258, edition 12mo.

† Gazette Medicale for 1830.

‡ Observations on Injuries and Diseases of the Rectum, p. 214.

§ Glasgow Medical Journal for January, 1833.

alvine contents, it is obviously unreasonable to imagine or expect that a comparatively trifling injury of the same portion of the bowel—such as the longitudinal division made in the operation for fistula in ano—should be followed by such a consequence.

Thus far, then, we see that the statements which I have made in this paragraph are not only supported by universal experience, but also by arguments founded on facts of the most conclusive nature.

I now come to the objection which this gentleman founds upon cases of laceration of the recto-vaginal septum, a subject from which I have also neglected to draw that support which, it will be seen, it is capable of affording to my views. In asking me if I have "never seen one of these melancholy cases where the sphincter ani is lacerated in child-birth, and where the inability to retain feces continues for life," he obviously assumes that such accidents are generally followed by permanent incontinence of feces, and that this is solely owing to the loss of the sphincters, and not in any degree to the injury inflicted on a higher portion of the rectum. Both of these assumptions are totally unfounded, for I shall now show, upon unquestionable authority, and from cases which I have collected, that many who have suffered very extensive laceration of the recto-vaginal septum and sphincters have never experienced incontinence of feces; and that others who have been at first afflicted with this consequence of the accident, have afterwards recovered the power of retaining and controlling the alvine discharges, without, be it observed, any union of either the sphincters, or other lacerated parts, having taken place. In speaking of these accidents Dr. John Burns*, after advising "keeping the bowels open," as one of the best modes of treating them, says, "during this period the stools are, at least for a time, passed sometimes involuntarily; but in other instances they can from the first be retained if the patient keep in bed;" and he then endeavours to explain the absence of incontinence by the action of "a flat valve," formed by the torn part, and which, even if it always existed, which is not the fact, would offer just as feeble a degree of resistance as the three cherry-like excrescences to which Faget attributed such retentive influence. Respecting the incontinence of feces which women who have suffered from this accident, experience, Gardien is also very explicit. He says, "Ou a vu des femmes rendant involuntairement les matières stercorales pendant plusieurs mois, acquerir par la suite la faculté de les rendre à volonté. J'en ai connu plusieurs qui, après avoir été sugettes a cette incommodité pendant quelque tems à la suite des couches, ont egolement queri à la longue, avec le seul dísagrement de ne pouvoir retenir les matieres fecales dans le cas de devoiment*." These extracts fairly represent the statements made by the comparatively few obstetric writers who notice the effects of lacerations of this kind, and fully bear out the assertions which I have made respecting them. But this extent of information being insufficient for my purpose, I have endeavoured to collect exact particulars of all such cases as are known to have occurred in this city; and the kindness of some eminent friends has supplied me with the very convincing and interesting matter contained in the following cases and observations.

"I have met with several such cases. No doubt, for some time after the occurrence of the accident, the stools generally came away involuntarily; but the patients, in most cases, soon acquired the power of controlling them. One of the worst cases of the kind I have seen was that of a patient examined some time since, in company with Dr. Hutton, with a view to operation. This woman could retain her feces perfectly at all times, unless on taking physic, when they passed freely by the vagina, and yet in her there was not a vestige of the septum remaining; the rectum and vagina forming almost one cavity."—(*Communicated by Dr. Evory Kennedy, Master of the Lying-in-Hospital, Great Britain Street, in this city.*

Mrs. S——, Sackville-street, aged 30, was confined, for the first time, in the month of September, 1832. Her labour was protracted, and of unusual severity, ultimately requiring the use of the perforator, in order to complete delivery. After delivery, it was ascertained that partly owing to the severe pressure the parts had undergone, partly to the extractive force required to complete her delivery, a considerable aperture was formed in the recto-vaginal septum, high up at its posterior part, through which the contents of the bowels were from time to time discharged. The natural contraction of the passage consequent on parturition, diminished somewhat the discharge of feces through this artificial opening; and she thus suffered considerably from this loathsome infirmity, until after the birth of her *first living* child in October, 1833, when she had the gratification of finding that the discharges had resumed their natural healthy course, and that the aperture in the vaginal septum had become entirely obliterated. She is now in the enjoyment of excellent health. During the continuance of the artificial anus, in the vagina, no fecal matter was discharged by the rectum, unless when active aperients were employed."—*Commu-*

* Principles of Midwifery, p. 70, 71, eighth edition.

* Traite Complet D'Accouchemens, t. 3, p. 308.

nicated by Dr. Mac Keever, formerly master of the Coombe Lying-in Hospital in this city.)

"Ellen Smyth, aged 40, a robust muscular woman, was admitted into the Coombe Lying-in Hospital, on the 5th of May, in labour of her first child. After a severe and protracted labour of sixty hours, the usual symptoms of constitutional exhaustion having set in, it was considered advisable to perforate the head, and accomplish delivery by the crotchet. Neither placental souffle, nor pulsation of the fetal heart, could be detected, although in the early stage of her illness both phenomena were manifested. No unusual difficulty whatever was experienced in the performance of embryotomy. After the cerebral mass was completely broken down, the crotchet was introduced on the inside of the cranium, and its delivery, after a few steady extracting efforts, readily accomplished. The perineum was supported by the pupil on duty, and at its anterior part was preserved complete and entire. On finding, however, something bulky pressing on its posterior extremity. he elevated his hand, and found the arm protruding directly through the rectum. A smart pain quickly succeeded, during which the entire recto-vaginal septum gave way, throwing the rectum and vagina into one uninterrupted cavity. After such a formidable and unusual occurrence, we naturally expected a train of the most unpleasant consequences, but, to our great surprise and gratification, she did not suffer the slightest inconvenience from the accident, although little was done except in the way of palliatives. She did not suffer from any involuntary discharge of feces, but possessed the same control over them as she did prior to her delivery."—(*Also communicated by Dr. Mac Keever.*)

"About eight years ago, Mrs. ——, of Castle Street, then 22 years of age, was attended in her first confinement by a late eminent accoucheur of this city. Owing to some unforeseen cause, an extensive laceration of the perineum, sphincter ani muscles, and recto-vaginal septum took place. She was told that the accident was a common consequence of a first labour, and having felt very little inconvenience from it, she was not aware of its real nature until after her next confinement, when various attempts were made, but ineffectually, to unite the lacerated parts by sutures. After the death of her former medical attendant, I attended her in several confinements. On these occasions I made the necessary previous examinations per vaginam, and ascertained that the laceration was an inch and a half, if not more in length, and for this extent had converted the vagina and rectum into one cavity; and in none of these examinations have I ever found feces either in the rectum or the vagina. As it was likely, however, that she had prepared herself for such occasions, I waited upon her very lately, in order to obtain fuller and more certain information respecting her state since the occurrence of the accident. She readily replied to my questions, which I had previously arranged, and the following are the results of my inquiries. Since the accident, she has never had involuntary stools; but, on the contrary, has been generally so constipated as to require the frequent use of purgative medicine. She has always had sufficient notice of a stool coming on, to enable her to obey the call of nature; yet, whenever she resisted this call long enough to permit the feces to enter the rectum, she lost, from that moment, all control over their discharge. Her greatest annoyance arose from taking purgative medicine; for, after a certain time, she was obliged to retire to her bedchamber, and remain there until its operation was over: she had never found excrement in either the vagina or rectum, between stool and stool, or at any other time but in the act of expelling the feces.

"Such is the statement which this very intelligent and respectable lady made, and I am convinced that its correctness may be implicitly relied upon. I purpose trying Roux's operation, with the quilled suture, which was not employed in the former attempts at reunion of the lacerated parts."—*Communicated by Dr. Ireland, Consulting Accoucheur to the Anglesey Lying-in Hospital.*

"Mrs. S—, aged 60, whose case is detailed in my work, (pp. 135, 136,) and in whom the recto-vaginal septum was extensively lacerated, laboured under an obstinate and dangerous attack of constipation, without having any feces whatever in the rectum. The last circumstance was omitted to be mentioned in the account of the case. But I have since ascertained the fact from Mr. Harrison, an eminent apothecary in this city, who introduced the gum-elastic tube, and, in doing so, discovered the laceration of the septum.

"In answer to your letter on the subject of laceration of the recto-vaginal septum, I beg to state that I have seen several cases of the accident—one occurred in my own practice. Two years ago I was called to attend a lady in labour of her first child; I found the waters broken, os uteri fully dilated and the head, with a hand, face being towards the pubis, at the os externum. The pains were frequent, strong, and very forcing, but there was no disposition in the external parts to dilate, and in this state matters remained for several hours, the head pressing with great force against the rigid and unyielding perineum. I did all in my power to guard against a laceration of the parts, but the patient became quite unmanageable, and starting, during a strong expulsive effort, to the opposite side of the bed out of my reach, she suddenly threw off a large child, the perineum, sphincter ani, and recto-vaginal septum, being at the

same time torn through completely. To remedy the accident I did not recommend sutures, having known them to fail in two or three cases, but being joined in consultation with Mr. Carmichael, we directed the patient, the bowels being thoroughly emptied, to remain perfectly quiet and as much as possible in the position most likely to keep the lacerated surfaces in contact, and not to rise to stool or urine. The bowels were afterwards preserved in rather a liquid state, the parts frequently washed with a decoction of chamomile and proper dressings applied: the parts, however, never united perfectly, but the lady on going to the sea side and using strengthening remedies, recovered the power of retention, and suffered little inconvenience except when the bowels were much irritated. For several weeks I confined her very much to the horizontal posture.

"Eight months ago I was again summoned to attend this lady in labour of her second child, and found the head low in the pelvis. The rent in the perineum and sphincter ani had not closed, but the recto-vaginal septum, which had united since the former labour, was extended over the child's forehead and gave way during the delivery. On the next day but one, Mr. Carmichael and I examined the parts. We found the perineum, sphincter ani, and about an inch and a half of the recto-vaginal septum divided, and they have not since united, yet the lady enjoys the full power of retention. On taking a review of the circumstances connected with this and many similar cases which have fallen under my observation, I am warranted in stating that females who suffer the accident in question, will, with due care, in a great majority of cases recover the retentive powers; the upper part of the rectum possessing contractile power, performs the office of sphincter and obviates the inconvenience which would otherwise arise from the accident.

"In examining these cases of laceration, I have never found feces in the vagina or rectum, and in a natural state of the parts I am disposed to think that feces will seldom be found in the rectum between stool and stool. The rectum is not, I conceive, to be considered as a *reservoir* for the feces, but a *duct* to afford merely a passage for the contents of the bowels.

"In those cases which are followed by extensive sloughing and incontinence of feces, I have been enabled to afford very great relief, by means of an instrument which effectually prevents the descent of fluid feces from the colon. I send you a drawing and description of this instrument. It should be coated with either varnish or caoutchouc, to preven rusting. Its spring should be of such a degree of strength as to make the necessary pressure, retain its situation, and produce as little inconvenience as possible. For this purpose it would be well, perhaps, to procure springs of various degrees of elasticity, in order to meet the varying circumstances of the case. In the instance of a lady, who laboured under incontinence of feces from an accident of this description, she experienced such relief, that, in a note to me she used this strong expression, 'since the last instrument was applied, I feel as if in heaven.' In her case I had tried several springs, before I succeeded in finding one suited to the purpose."—(*Communicated by Dr. Samuel B. Labatt, formerly master of the Lying-in Hospital, Great Britain-street*).

These are, as far as I have been able to ascertain, all the cases of the kind that are known to have occurred for several years in this city, yet we see that all bear the strongest and fullest testimony to my statements on these and other points. We see that such accidents rarely entail permanent incontinence of either feces or flatus—that they are often unattended by any inability to retain these discharges—and that whenever they are followed by this inability, the retentive power is generally lost only for a certain time, and is ultimately recovered. Moreover, we see, for the first time, that the chief annoyances which women suffer, even from extensive laceration of this nature, are limited to the necessity of obeying the first call of nature in a proper time, and of using ablution immediately after each stool. In general, therefore, the state of women so circumstanced, is not so formidable or disgusting as is commonly supposed. They are enabled to conceal their misfortune, often perhaps from their husbands; and it is only reasonable to suppose that they do so, rather than make a disclosure, against which all their feelings of delicacy and prudence must naturally revolt.

THE LAST

ORAL LECTURES ON HERNIA,

Delivered at the School of Surgery, Peter-street.

By John Kirby, LL. D.,

Late President and Professor of the Practice of Medicine of the Royal College of Surgeons, Dublin, &c. &c.

LECTURE III.

Treatment of Hernia—Directions for the Application of the Truss—Changes effected in the Hernial Sac by the pressure of that instrument.

If sufficient attention be paid to these matters, in the construction of the truss now and for so many years in most general use,

I am certain that instrument will be found, in the judgment of every individual surgeon, to be far superior to all the boasted improvements which every day announces to the afflicted.

The return of a hernia being with most readiness effected in the recumbent posture, that position is most convenient for the application of the chosen truss. Well, the truss is properly disposed so far—and thus far its adequacy coincides with our desire. We tell the patient to cough with various power—and this often repeated—there is no protrusion, and so far there is satisfaction—yet, we must not rest satisfied. We are to appeal to other criterions, and these are to be found when the erect posture is resumed, and when not only the impulses practised before are repeated, but various contortions and motions of the body, are made to disturb the security which the instrument hitherto appeared to afford. The stair is to be ascended with alternate feet, and alternate feet ought to descend. It is descended again, and both feet are to come down as in a leap; the patient is to stoop in different directions, with various inclinations of his body, and with an almost strained disposition of the lower limbs; he bends to his shoe; he stretches himself on the ground, and raises himself by a passage through such motions as are most convenient. I speak of these exercises as if there were no persons before me: because, in fact, they are things with which I have a daily familiarity. In the eyes of many they are matters of trifling signification; and why may not others be allowed to laugh, when you seem to suppress a smile at my strange particularities? But, gentlemen, I pray you, indulge your propensity—I can feel no displeasure—I am myself amused. I look at you again, and now the expression of your faces is as sombre as it was before mirthful. Why will you thus play hypocrite, and in the traits on which my eyes rest, belie the present feelings which act upon your hearts? If in your estimation, and the estimation of others, these remarks are ostentatious nothings, you will indulge me with the opinions, which I am not ashamed to confess and hold, that here, as in many other matters of minute practical details, what are called ridiculous nothings do absolutely and positively amount to realities, which I must beg leave to introduce to your farther notice. Well, the gymnasia of the maimed is closed, and our business in the next instance shall be to guard against inconvenience, which may be expected to arise from unusual pressure. When the force we use is inconsiderable, precautions are unnecessary; but where the force is great, cutaneous fretting results, and provision should be made against its occurrence; the parts pressed on, should be frequently washed with spirits and water, with alum solution, lime water, or a combination of the latter with decoction of oak bark. But better than all, is a weak solution of nit. argenti, daily applied. In time, the pad of the truss becomes polished, in consequence of absorbed perspiration, while its softness is diminished by use. In these cases, uncomfortable feelings of chafing and scalding are removed by the interposition of soft shamoy, old muslin, calico, or silk. To avoid the annoyances which these produce, trusses are frequently sent to be re-covered: of course the protrusion returns, and any advantage which may have been gained is not only lost, but danger of strangulation is necessarily incurred. In fact, whenever a truss is used with a view to a cure, it should not for a moment be laid aside; day and night it should be worn, and to guard against all casualties, every patient should be provided with a second instrument, in every respect corresponding with that which is in use. Severe exertions of every description are strictly to be prohibited. Abstemiousness is to be rigidly enjoined. A moderate freedom of the bowels is to be carefully preserved, and every cause likely to induce flatulency, or to promote abdominal distension, must be sedulously avoided. When the p ersons under treatment have not acquired their full growth, the truss will require to be changed as development proceeds, and a similar caution should be observed when alterations in the outline of the trunk arise from corpulency, or emaciation. When fat abounds, the pad in time becomes imbedded, having excited absorption of the subjacent adeps. When the depression is considerable, the force with which the spring of the truss originally acted is somewhat abated. But whatever loss is thus sustained, may be recompensed by interposing a shamoy pad, of suitable thickness, between the integuments and the truss, to which it should be always attached.

Such are the principal precautions which claim a continued attention. The submission they enjoin is, indeed, rarely to be met with, and can seldom be procured at any time within the early years of manhood. Although we may restrain the young for a considerable period, and by relieving the fears of the timid, succeed in commanding the attention necessary to recovery, a time generally arrives when impatience dictates a breach of discipline, and the use of the instrument is gradually laid aide. The disuse is the first instance not followed by any inconvenience, but if it be premature, as indeed it most generally is, protrusion will take place under circumstances involving, possibly, more risk than would have been incurred had a truss never been employed.

A student of this school, soon after his enrolment, consulted me on account of a femoral hernia of the left side. A rupture

of that kind is uncommon in our sex, and is to be regarded as an exceedingly rare occurrence in a person of his age, for he was only twenty. I advised a truss, and prescribed every rule which I have just communicated to you. These were steadily adhered to for three years, during which period the disease never once made its appearance, as he confidently assured me. The promise of a matrimonial alliance induced him to lay the instrument aside, nor did he resume it after the object he had in view was disappointed. He subsequently contracted a venereal complaint, accompanied with bubo, which, from intemperance and abuse of mercury, became phagadenic. The hernia had reappeared, and the intestine was finally involved in the destructive process which was going forward. But this was at length arrested, incarnation to a certain degree took place, while three stercoraceous fistulæ remained. Some of you remember the wretched appearance of poor Shannon when he again took his place among you, and the loathsome odour that issued from his person must be in the memory of many. Avoided by all, he withdrew from an attendance here; and shunned by his friends and family, he retired to a remote chamber in his father's house, and lingered through a wretched existence,—an object of disgust to himself and to all whom the ties of mutual affection sustained while they provided for his wants, and administered to his cleanliness and unhappy comforts. There is much in this case to favour a lasting impression, and it is for this reason, chiefly, I have been induced to bring it before your notice. It shews how tedious, even under very promising circumstances, is that cure at which many facts encourage us to aim; it exhibits the circumspection which should govern us, when solicitations induce our assent to the removal of a defence which stubborn experience demands to be continued.

I shall now just observe, that the best contrived truss may disappoint the surgeon and put the patient to annoyance, by permitting an escape of the hernia. On this point, the latter must have the benefit of full information. Should he at any time feel pain, sickness, griping, faintness, or general abdominal uneasiness, he is to be taught to refer these symptoms to some derangement in his truss. Distress, however, is sometimes complained of in other situations besides the abdomen. I remember a case strongly illustrative of this fact. A very old gentleman had double hernia; the one umbilical—it was large, but it never caused any particular inconvenience—the other was scrotal, and for this he wore a truss, which answered its purposes as long as it was carefully applied. A severe fit of coughing, incidental to a catarrhal attack of some protracted duration, was succeeded by sickness, vomiting, faintness, pain in the hips, and along the thigh at the same time, with severe cramps of the muscles of the legs. I was sent for, and was absent from my house. The attendance of a medical man, who knew nothing of the case, was procured. He prescribed according to his judgment. Before his medicine was compounded, I reached the chamber of my patient; I had him at once laid on his bed, I removed his truss, and all was instantly quiet.

We occasionally meet with hernia which cannot be confined by the utmost ingenuity of contrivance. Yet to those, the merely mercenary vender, with all the usual experience of the complete adequateness of his instrument, endeavours to accommodate a truss—at all events he sells one, and so far his purposes are admirably answered. But the means are ineffectual—the protrusion appears, and the patient, who is ignorant of every thing concerning his disease, acting up to the advice he received, reapplies the bandage with diurnal regularity. One is usually surprised how little serious mischief ensues from a cause which seems so well calculated to produce a considerable share of inconvenience and even immediate danger. I have many times seen trusses of very great power applied over ruptures of the largest size; and I must say, I have been astonished in some cases, at observing the greatness of power which was borne by a protruded bowel, without any apparent disturbance of alvine function. When all the parts to which instruments had been applied were moveable, I was the less disposed to wonder, inasmuch as their yielding afforded a satisfactory explanation of the way by which the pressure was eluded. But this solution could not answer when any of the surrounding parts were firm and fixed. A new explanation must therefore be afforded, and this was easily found from observation. I remarked, under circumstances you can now understand, that the pad, however it may have been adjusted in the first instance, was finally placed much above the outlet opening, for such in these cases has been the situation in which I found it. Of course you perceive it was then inoccently disposed, and I am sure there is no difficulty in comprehending how it arrived at that position. In fact, the rupture descended, and then a deficient instrument was tilted up, and did not possess the power of being either useful or injurious. The credulity of rank and information is somewhere deplored by an eminent surgical writer, and it is the object of his regret and censure. I acquit him of the charge laid to the account, and I beg you to believe, the judgment thus given, is not hastily pronounced. Rank, information, high acquirement, and ignorance, are on a level with respect to this disease. They know nothing of its nature, so that they

may be allowed to measure opinion by their belief, by the removal of inconvenience, and the substitution of ease. With many I have known freedom from pain to be the criterion by which they judged of cure, and the foundation of the recommendation they gave in favour of their insufficient instrument.

When herniæ have arrived at a considerable size, when they hold a pendulous situation and are not to be restrained by a truss, our best plan will be to give them all the support which it is in our power to afford, by such means of suspension as we can devise. In certain cases, the ordinary bag bandage will answer every purpose. But in others you will be obliged to use your own invention to provide such such means as may prevent a further increase of the tumour. These circumstances do not admit of any other topical treatment; and presuming that you see the necessity of those rules of regimen and caution lately under notice, I shall not attempt to press them farther on your attention. In consequence of the large diameter and freedom of the orifice of escape, such herniæ as I speak of always return in the recumbent posture of the body—cure you are aware is out of the question, and therefore any apparatus may, without any risk, be laid aside during the night.

Irreducible herniæ of magnitude are to be managed according to the plan just now laid down. No prudent surgeon will ever think of pursuing any other, because he knows that none other promises to be of any service. Patients, however, will oftentimes hold a different opinion; and thence it is, we meet persons who wear spring instruments, buckled on with a tight truss, one would naturally think to be contrived with a view to insure the greatest amount of mischief. Our reasoning with such folks is useless, and all representations of what may be entailed are of no avail. They find a comfort in the means we condemn, and they are unwilling to give up a custom from which they think their security has for many years been derived. A remarkable example of this self-deception is afforded by a gentleman, the subject of both scrotal and large umbilical hernia. In both, instruments which he is for ever varying, are constantly applied, and although their use has on many occasions been productive of much distress, indeed I may say of danger, he perseveres in a habit that one time or other bids fair to bring him to a condition which will inevitably demand a surgical operation. Notwithstanding my general objections to the truss, I must confess, pressure properly proportioned and cautiously employed is sometimes of value in irreducible cases. Perhaps it prevents the delay of fæces, and thus opposes accumulations. Perhaps it counteracts the tendency to adipose or morbid depositions. Perhaps it may, in a measure, cause absorption of such as have been already deposited. Upon whichever of these grounds the fact is to be explained, I am sure it is true, that irreducible herniæ have undergone a considerable reduction in their size, merely by the use of continued pressure; I say merely, because the alteration could not be attributed to any other causes, as none other was known to be in operation, either in the way of regimen, restriction, or medicine. I remember a publican from Island Bridge, who was introduced to me as a patient, by the porter who attends you. The man had a femoral hernia of incredible bulk. I almost fear suspicion of my veracity, when I state it to have been as large as my hands clenched and placed together. It descended the thigh, and at first it struck me as being a psoas abscess; but the history detailed, and a most careful examination, convinced me of its being a rupture. Besides the deformity, little was complained of. He wished, however, to get rid of a disease which exposed him to much unpleasant remark. It is proper to observe, that to some extent the tumour was reducible, and this set me upon the invention of a truss, by which I hoped to confine the mass to its irreducible dimensions. I procured a case of unyielding leather for the upper part of the thigh; this was fixed to the usual spring, and was otherwise adjusted by straps to secure its immobility. Inside the firm case were placed a series of elastic steel cushioned claws issuing from a central plate, connected to a greater external plate; also fixed by straps, internal to the leather case, was placed a plate about two inches in diameter, from which lesser claws proceeded, so arranged as to act upon the inside a greater series in such a way as to increase their compression, the whole being managed by a screw, whose threads were so firm that each complete rotation gave a considerable increase to the power of the instrument, so that it was prepared to follow whatever degree of diminution might by possibility take place. At the end of three months, the tumour was reduced beyond the farther power of this apparatus. The man was satisfied with the amount of his relief. He was unwilling to go to any more expense or trouble, and of course I heard no more about him. Now this man was the subject of an untried experiment, the result of which was decidedly favourable to its repetition. It has been since repeated, not often it is true, by the same means, but always on the same principles; and I now think, what I have seen bears me out in my position, that well conducted compression is of value in some cases of irreducible hernia, and of course, it is fair to presume, if aided by regimen, position, and medicine, it might accomplish more than patients are led to think or medical men can easily be induced to believe.

Gentlemen, you are now surely aware that the operation for strangulated hernia does nothing more than aim to rescue a patient from the danger which then overhangs him; so far from affording a radical remedy for the disease, it weakens the abdominal parietes, and sometimes favours an additional expansion of the protrusion. A truss, of course, is permanently necessary after every such operation, and you are to understand that the period of its first application depends on the perfection with which the wound has cicatrized; so far as I have seen, I may say, an extensive division of the peritonæum never, perhaps, unites. But while the hernia, which is afterwards observable, occupies a greater superficial extent, it seldom passes to its original distance from the cavity of the abdomen. Here, however, I must apprise you, I speak of the disease when it has acquired some prominent magnitude, for I doubt that my observations apply to cases of very inconsiderable size. I have already informed you, that these would seldom, if ever, heal by the first intention; they suppurate, granulate, and cicatrize. The manner of union opposes no abdominal restraint, and yet the kind of adhesion which takes place, unquestionably limits the expansibility of those parts amongst which the protrusion originally had its seat. In these cases flat and broad pads are to be preferred; at the same time, a minor degree of pressure will satisfy any intention of security which we hold in our view.

I conceive, these perhaps unnecessarily minute directions on the application and use of trusses, may be aptly wound up by a brief examination of the change they are adequate to produce in the parts to which they have been applied. A long habit of teaching has instructed me in the value of endeavouring to fix the attention by some striking example strongly bearing on the point I desire to inculcate. I shall therefore relate to you the following case:—Mr. M——, a man of fifty, very corpulent, always a coughing, catarrhal person, and having been for some years strictured—a complication unfavourable to any hernial remedy—required me to procure him a truss for a scrotal rupture, which only lately reached an amazing size. He was about to undertake a mail-coach journey to a remote distance the next day, and of course the instrument should be quickly procured. His order was accordingly obeyed; and both his desire and my object seemed to both him and me to be most properly carried into effect. After he had proceeded eighty miles, and indulged a hearty appetite at dinner, he began to experience uneasiness, which increased until midnight, and was then intolerable. A fellow traveller, himself the subject of rupture, recommended my friend to take the first opportunity of removing the bandage, and of applying in its place an instrument of his, which happened to be in his portmanteau. By this change, my patient was enabled to pursue his journey, although he still suffered pain, and felt the usual sensations accompanying an inflammation. Having reached Cork, he was compelled to take to his bed, and to submit to three weeks' confinement, and a course of antiphlogistic treatment. The inflammation did not at any time engage the abdomen, nor was he thought to be in danger. When I saw him on his return, a large callosity occupied the situation of the rupture, and made every thing beneath quite indistinct. In time, this callosity declined, but never wholly disappeared. After an interval of some years, I took an opportunity of examining these parts, and of inquiring about the rupture. There now remained a flabby mass, whose greater volume was placed at a distance from the ring, but the hernia, I was assured, never had returned. Now the mass which I felt was, most probably, no more than the remains of the inguinal sac; omentum it certainly was not, and you at once comprehend the impossibility of its being intestine. Supposing it to have been the sac, we must then argue that its neck, at least, became obliterated; and we are now only to examine as to the cause which produced that obliteration, and the manner in which that cause operated in its production. It cannot be doubted, that the severe pressure of the truss was the first agent by which all that followed was set into motion, for we see no other in action adequate to such an effect. We perceive that inflammation resulted from this cause; and from all we know of the consequences of that disease when it affects the peritonæum, we can conceive how opposite and apposite surfaces become united. Such a view of the matter is further corroborated by appearances noticed, when I spoke of the alterations which sacs undergo, when trusses have been for some time, and perhaps for that time even, carelessly used. However, in such cases, the neck of the sac is disposed to narrow, and in the present instance it is not improper to conclude, that a process, usually slowly displayed under a casual and mild pressure, was more suddenly forced into action by a severe exercise of compression. Observe, I do not mean to seize on this case, and fix it as a foundation on which I intend to raise a rule of practice; my business has been, to detail the whole circumstances of an event, and to give you and others, to whom so interesting a history may be mentioned, the liberty of deducing such conclusions as the included premises fairly appear to justify. If your questions extend to the more insulated position of the sac, you must not expect any satisfactory reply from me, as I can form no decided judg-

ment. Remote analysis will lead to conjecture: as such, and only as such, I wish you to receive the opinion I entertain. Cut off from the cavity of which it was once a part, and deprived of that power which once maintained its functions, added to its distension, and forced it into growth, it withers and wastes away. The tunica vaginalis testis strikes me as affording an illustration in point. This membrane was once continuous with the peritonæum. In time it has been excluded from any communication with that cavity, if I may so speak, and while the testicles exist, its structure, integrity, and functions are preserved. But let the testicles be removed by disease as they have been in the instances of which these preparations are examples, and then the vaginal tunic shrinks upon itself, until it becomes a business of difficulty to recognise the traces of its existence. I now show you a morbid specimen connected with the subject of these remarks; it is taken from the scrotum. Three cavities are exposed, the lowest of them is the tunica vaginalis testis, somewhat enlarged by hydrocele, the testicles appearing at its posterior part. The next above is an hernial sac, which communicates with the abdomen, and inferiorly almost reaches the membrane of the testicle, but is separated from it by a septum, which is a portion of the third cavity, and within which you observe the hernial sac to be contained. Now you can readily follow this envelope to the ring, where it seems to be lost upon the peritonæum. This is an uncommon appearance; I have never seen any thing similar to it, nor can I find on record any thing described which bears a resemblance to this preparation. I was at first puzzled how to explain the formation of the third cavity, and, indeed, the solution I can find, after all my consideration, is derived from the supposition that there had been a hernia at some former time, the neck of whose sac had become thoroughly closed up, and that a new rupture had subsequently taken place through the same opening, and of course the new peritonæl hernial pouch was inverted into the old one. This preparation had long been the object of very general curiosity, and some at one time some were disposed to confound it with the hernia infantilis of Mr. Hey, yet farther examination corrected the mistake, and conducted them to the conclusion at which I had arrived.

I do not find that there has been yet a determinate opinion on the subject of the return of a hernial sac. I rather believe the greater number of authorities lean to the negative side of the question; and therefore I am almost unwilling to announce myself at taking my place with the affirmative. But I hope to convince you, the serious part of this audience, that in so doing I am not obedient to caprice, but to facts, which to me appear to be sufficiently forcible to lead my opinion. Well then, I say that hernial sacs under certain circumstances admit of return. Although, for the greater part, I confine this proportion to cases of rather new formation, I do not mean to exclude all cases which do not properly come under that head. I have already alluded to one instance which shows the propriety of my last remarks. It is one on which I operated —I opened the sac, leaving untouched a considerable portion of its neck; I divided the stricture, and pressing the intestines I found that it readily retired into the abdomen, but again reappeared in the wound in consequence of the patient having coughed. The intestine was sound, tense, and elastic as before its return. Until it presented again I did not observe that the sac accompanied the hernia into the belly. Another reduction, made as an experiment, convinced me of the fact, and the reprotrusion of all by the repetition of the cough assured me of the perfect mobility and consequent reducibility of this membrane, even in a disease of long standing, and to which a truss had been frequently applied. When the deficient dilatation of the neck of the sac was rectified, both it and the contents were finally replaced in the cavity of the abdomen. This accident threw me upon inquiry, and my subsequent researches, the result of which led me to the conclusion (it is quite necessary I should notice), which it has been just said, I have adopted. You are all aware with what facility the peritonæum may be detached from the transverse and iliac fasciæ, and you must know that this depends on the fineness, laxness, and yieldingness of the connecting cellular tissue. This membrane abounds near the crural arch, is prolonged upon the spermatic cord, and prevails in other situations, although in a lesser degree, where herniæ are known to arise. During the progressive and slow growth of the disease, this cellular structure, notwithstanding its being occasionally stretched, for a long time retains its proper elasticity, which however finally becomes somewhat impaired, a force being continually exerted against it; or it may be more rapidly diminished, whenever sudden impulses give rise to a sudden increase of the tumour. But still it has, even in these circumstances, a persisting quality, which is perhaps never lost until the natural character and relations of the membrane are changed by the influence of some power or degree of inflammation. The unaltered appearance of this structure I have demonstrated to you over and over again, in our pathological dissections, by which I have already endeavoured to explain, a phenomenon of daily occurrence connected with this subject. In many instances, while the abdomen lay open to your view, you have seen me withdraw the hernial sac from its external situation, and you have also seen this part resume that situation, when ceasing to

stretch the peritonæum. I pulled at those structures with which it was externally connected, so that you have had the frequent evidence of your senses with respect to a point upon which I may assume every doubt to be removed. If further proof be sought for, it is readily furnished to all who duly regard the lessons which practice offers to their attention. Hence we receive arguments not less forcible than those deduced from the hernial subject, for we positively find that the sac is absolutely returnable in the living, for the tumour disappears from the eye, and not a trace of its existence is discoverable by the hand.

This matter being settled, our next inquiry should be as to the changes which the returned sac undergoes, supposing the hernia to be permanently confined within the abdomen. Whatever these are, we know they are slowly accomplished, for even after several years we have found the disease to return when a truss has been imprudently laid aside. The means of arriving at certainty here are exceedingly limited. However, the four post mortem examinations which have been made, lead to the following conclusions: —First, that the capacity of the sac becomes gradually diminished, and therefore it is allowable to conjecture that it may finally altogether disappear. Secondly, that when it has become wholly obliterated, a kind of cicatrix remains corresponding with the opening of escape, and to a certain extent moveable upon it. This mark varies from the size of a shilling to a half-crown; and the small patch of which I speak has a mottled opaque appearance, which I attribute to an unnatural adhesion of a few altered parts of the cellular membrane by which it is attached; and these seem to be the probable consequence of some preceding and perhaps obscure inflammation.

Thus, Gentlemen, I have endeavoured to give you some idea of the means employed by nature to effect a radical cure of this troublesome and dangerous disease. The more constantly they are made the subject of your reflection, the more thoroughly you will be convinced of the value of such precepts as I have given you respecting instrumental assistance, and the use of those auxiliaries which good sense and a knowledge of your profession will make you comprehend, to prescribe with authority and effect. No one can be better aware than I am, of the reliance with which young men repose in the opinions and counsel of a teacher; and therefore I feel how exceedingly improper it is in any person in such a capacity to advance as your instructor with any other guidance than that which cannot be derived from any other source than facts properly examined, and experience which has been duly and maturely weighed. I trust I am, in my intercourse with you, directed by this conviction; and that amongst the imperfections of my discourse, I shall at least stand acquitted of the charge of saying or doing any thing which hereafter might mislead you, bring disrepute upon your professional character, or hazard the well-being of those who, with reliance on your judgment, confidently place in your hands the fate, not only of their health, but of their lives.

LECTURES ON OBSTETRICY,

AND

DISEASES OF WOMEN AND CHILDREN,

(Illustrated with Numerous Plates).

DELIVERED AT THE MEDICAL SCHOOL, WESTMINSTER DISPENSARY, GERRARD STREET, SOHO SQUARE. SESSION 1836.

By DR. RYAN.

LECTURE XXX.

Institution and Physiology of Marriage—Proper Age for this State—Hygiene —Premature, ill-assorted, and late Marriages.

Marriage is a natural, civil, legal, and religious contract, wisely instituted by the Creator for the procreation, physical and moral education of the human species. The object and end of this union is not only the generation of infants, but also their nourishment, clothing, comforts, support and maintenance. Parents are morally bound to have their children instructed at a proper age in piety, literature, the arts, and sciences most suited to their own, or even the highest sphere of life, so that they may become good citizens, successful in the world and useful to society.

As a general proposition, it may be taken for granted, that healthful and vigorous parents beget healthful offspring, and delicate or diseased individuals have enfeebled infants. It is also a fact that parents transmit certain diseases to their children, as scrofula, syphilis, pulmonary consumption, mania, epilepsy, and many other infirmities.

The proper age for marriage in this and other temperate climates, is from eighteen to twenty-one years for women, and from twenty-five to thirty-five for men; but the period varies according to the vigour of individuals.

The consummation of marriage, should be effected with gentleness and moderation, and not with unrestrained impetuosity, as among brute animals; for if it be accomplished with violence, severe pain, laceration, effusion of blood, with inflammation of the external and internal genital organs, will, in general, be induced. All obstetric authors, and all writers on medical jurisprudence, attest the truth of this statement. Sir Charles M. Clarke, Dr. Dewees, Dr. Beck, and many others, relate examples, and some have fallen under my own observation. Every medical practitioner is aware that in cases of female violation, more or less contusion, laceration, hæmorrhage, and inflammation are produced, more especially in cases of very young persons, and when there is much disproportion between the size and development of individuals.

When some of these diseases are induced, they are aggravated by the frequent repetition of the cause which excited them, it occasions excruciating pain instead of pleasure, and generally produces sterility and bad health. I might narrate many cases of this kind, about which I have been consulted.

It is also to be remembered, that malformation of the external genitals may altogether prevent copulation and the consummation of marriage. I have described cases of this description in my Manual of Medical Jurisprudence and State Medicine, 2nd edition, 1836.

There is nothing more certain than that precipitation and impetuosity in the consummation of marriage causes, in the very young or aged of the opposite sex, exquisite pain, from contusion, laceration, &c., and these evils result more from brutal passion than the legitimate object of propagating the species. In farther support of this opinion I may add, that the Jews and all ancient nations maintained that the consummation of marriage ought to be characterised by the effusion of blood; and this is true, but with many exceptions, as when leucorrhœa or other mucous discharges were present, relaxed the genitals and destroyed the hymen. In these last cases, there may be no effusion of blood, on the consummation of marriage, though the individual is a virgin—a fact well known to every scientific and practical obstetrician and medical jurist.

The repetition of sexual intercourse within twenty-four or forty-eight hours, or within two or three days, will seldom, if ever, be followed by conception; and, in such cases, it is a mere sexual gratification. Abstinence for six or eight days is necessary for a majority of individuals, to effect the perpetuation of the species. There are, however, exceptions, many of which have fallen under my own observation.

According to most physiologists, morning is the best time for reproduction, that is, after the fatigues of the preceding day are dissipated by repose, and when the majority of healthful individuals have most virility. Galen well observed, labour, food, drink, sleep, Venus, "labor, cibus, potio, somnus, Venus;" an axiom accordant with modern physiology. The hygienic precepts relative to the generative function, also deserve attention.

I. It should never be indulged in until there is a natural desire and vigorous impulse; and seldom, if ever, before the adult age.

II. It ought to be avoided when it produces more than temporary depres-

sion of spirits, or the least debility of the moral, intellectual, or physical states, during intoxication, mania, and when there is venereal or any other disease of sexual organs of either party.

III. It ought to be used in moderation, when the individual makes much mental or corporeal exertion, or during recovery from any severe disease, when there is a state of debility, or when restorative aliment, &c., cannot be procured.

IV. It ought to be entirely abstained from during the presence of the menses, childbed evacuation, which continues for nine, twelve, or more days after delivery, and only used moderately and occasionally during pregnancy, suckling, and avoided in all painful diseases of the sexual organs. It is also particularly injurious after taking food.

There can be no rule laid down as to the repetition of the performance of this function, as this will depend on age, habit, occupation, situation, climate, season, aliment, and numerous other external influences, which are capable of modifying amorous impulse.

Much farther information might be given, though not published, on this subject, with which every well educated medical practitioner is acquainted.

It has been already stated, that nearly all mammiferous animals, with very few exceptions, refuse to admit the male after they are with young, because the great object of nature is accomplished. The violation of this law by the human species often causes abortion, frustrates the view of nature, and seriously injures the health or may destroy the life of the woman. I have fully described the injurious consequences of abortion, in my Manual of Midwifery, and proved that women suffer infinitely more harm from them than from natural parturition, or delivery. Moderate intercourse may be indulged with caution and gentleness, but violence is invariably injurious.

Every pregnant woman is the depository of a new and feeble being, at first imperceptible to the human eye, though the future statesman, philosopher, or emperor, and which is powerfully influenced by the moral and physical conditions of the mother, or by the state of her mind or body. I have already minutely described the hygiene or precepts for the preservation of female health before marriage, with a view to her own well being as well as that of the offspring, and those relative to the function of reproduction, pregnancy, parturition, the child-bed condition, and lactation or suckling.

It would occupy by far too much of the time allowed for the delivery of a course of lectures on obstetricy and diseases of women and children, were I to discuss fully the various topics connected with this part of the subject; as, the motives which influence matrimonial contracts, or marriage, as the true source of human happiness, offspring, and society. These, and many other parts of this contract, are referred to the moralist and legislator, although they have the most powerful influence on the health of parents and their children. On this ground only I shall briefly allude to them.

The motives which influence the majority of the world in contracting matrimonial unions, are generally false, selfish, and most detrimental to the procreation of sound and vigorous offspring; such as ambition, wealth, rank, title, interest, a love of independence, of an establishment, a desire to escape parental restraint, anger, a determination to disinherit relations, disdain for a faithless lover or mistress, necessity, obligation, passion, imitation, and very rarely the only proper motive, pure and virtuous affection. It is also well known that parental authority cannot reasonably or morally compel alliances when the inclination of the individual most concerned is opposed; although we see too many forced and unhappy marriages ascribable to this cause.

Love is implanted by the Deity in human nature, nay in all organised beings, both plants and animals; all grades of mankind have felt the power

of this passion—it is the same in all—as the poet has it, "amor, omnibus idem"—or, more strictly speaking, in almost all, for it is said, that a few have never felt its influence. It is equally powerful in the palace and in the cottage; it is universal, or very nearly so; it glows in almost every breast, and it has been sung by the sweetest bards of ancient and modern times. Its power so strongly attaches two individuals, that no human law or intervention can separate them; for though united to others, they never can be happy, nor their offspring vigorous.

Premature, ill-assorted, and late marriages, are equally injurious to the procreation of vigorous and healthful infants.

It is also a fact, that premature exertion of the generative function is most injurious to the health of the individual and offspring. Agriculturists are so well aware of this fact, that they prevent the premature intercourse of the inferior animals.

There ought not to be great disproportion in stature between those who engage in matrimonial unions; but more especially, a delicate slightly-formed woman, whose pelvis is small, ought not to marry a large robust individual, as the offspring will be large, produce great suffering in coming into the world, frequently require the use of artificial aid, and sometimes mutilation, while the health and life of the mother may be injured or destroyed. This is the fate of girls of small stature who become mothers at an early age, as twelve or fifteen years, and of those from thirty-five to forty; both of whom generally purchase the pleasures of maternity at a very dear rate. The hip and other bones which form the cavity through which the infant has to pass are not sufficiently developed in extreme youth; and the ligaments and muscles which cover them are too rigid after the age of thirty-five, in some women. It is also well known that small bitches sometimes die undelivered, when impregnated by large males; and this is the result in many other animals, when disproportioned.

When there is a great disproportion between the reproductive organs, this function cannot be performed. Thus, excessive size, thickness, or length of the male organ, may render generation excessively painful, or indeed impossible, with very young girls or those of small stature; and cases have fallen within my own observation, in which marriage could not be consummated. It also may happen that the genital fissure may be contracted, filled with a fleshy growth, or terminate in a cul-de-sac. In ordinary cases, Orfila is of opinion that the generative act may be performed with proper precaution and gentleness. I have been repeatedly assured that it has been productive of pain for two and three months after marriage: infertility was the result in some cases, and sometimes inflammation of the womb, which was succeeded by painful menstruation, barrenness, and finally cancer or some of many other ulcerations of the internal or external genitals, which will be described hereafter.

With respect to extreme narrowness of the vulva, if there be the slightest aperture, there may be conception, and the vagina dilate spontaneously during pregnancy. I have collected some remarkable cases of this description in my work on Medical Jurisprudence, 1836; and a few months ago, I attended a similar one with Dr. Ashwell, the history of which I gave you on a former occasion.

The genital function is as imperious in the human species, at a certain period of life. as the digestive, but must be exerted with moderation, to preserve health and procreate new beings. It is well known that rigid continence cannot be observed about the age of puberty, and for years afterwards, as the accumulation of the seminal fluid in its receptacles will irritate the whole of the genital organs during waking and sleep, and often terminate

by natural and involuntary emissions. These and all venereal excesses disorder the mind and body, induce sadness, ennui, disgust of life, extreme lowness of spirits, sadness, and even loss of reason; whilst natural sexual enjoyment excites and exhilarates vitality, improves the mental faculties and corporeal functions.

Excessive and profuse or repeated emissions enfeeble both mind and body, induce the greatest mental anguish, and predispose to insanity or suicide. I have elsewhere described the salutary and morbid effects of the use and abuse of the genital function, to which I refer you*.

It is important to state, that the baneful habit of irritating the organs under consideration, often arises from disease or a morbid state of remote tissues, at an age when amorous impulse cannot exist.

Infants at the breast, whose sexual organs are so undeveloped, and who can have no sexual desire whatever, often contract the habit of frequently touching these parts. This apparent phenomenon is easily explained by physiology. The sexual organs are lined by a fine membrane, similar to that which covers the lips, throat, intestines, and lungs; and irritation in any point of this membrane may derange every part of the body, which is covered or lined by a continuation of it, as the genital organs are. There is not perhaps one infant in a million who does not suffer from irritation in some part of this membrane, induced by numerous causes, as teething, improper food, or cold; and the effect will be inflammation in the eyes, ears, nostrils, throat, lungs, or stomach and bowels, and also in the genital passages, as every one of these parts is covered by mucous membrane.

But the habit of touching the last-named parts, when acquired in infancy, often continues to the age of puberty, when they become developed and highly sensitive, which renders it inevitable. In other, and unfortunately in most cases, this habit is acquired by example or intuition, more especially by allowing grown persons or adults to sleep with children, or by the depravity of servants, ushers, or tutors in schools or families, or those contaminated with it. The bad effects of it on health, on the mind and body, and especially on the source of human existence, have been forcibly described by physicians of all ages and countries.

There is not a mother or a nurse who must not have observed the genital member of male infants in the cradle, capable of erection, from the presence of urine in the bladder, or by the slightest physical irritation of that organ.

Again, we observe children before the age of puberty, or when no sexual desire can exist, instinctively make attempts at sexual approach; and hence it is an established custom in all well-regulated families and schools, not to allow those of the same or the opposite sex to sleep together. Irritation in the mucous lining membrane of the mouth, throat, gullet, stomach, bowels, or genito-urinary organs is the exciting cause of this habit, and is induced by too stimulating and improper aliment, as ardent liquors of any kind, spiced meats, &c. The effect of this irritation is manipulation of the generative organs in either sex, which may commence at birth, and continue to the age of puberty, which is from twelve to sixteen years in this climate. Female infants are equally liable to irritation or itching of the external genitals; numerous examples of which you have repeatedly observed at the hospital and dispensary. Muco-purulent discharge is the result, which is mistaken by the ignorant for gonorrhœa.

It is, however, at puberty, when the genital organs suddenly and astonishingly develope, that touches and manipulations are increased, and lead to

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* Lectures on Population, Marriage, and Divorce, &c.

masturbation or self-pollution. The natural excitement of the organs is succeeded by the secretions of semen, and the menstrual fluid, which produce the most extraordinary physical and moral changes, as already described, and which are greatly increased by local irritation. All the characters of childhood are lost: there is great amorous impulse, and those who have experienced it, too often initiate youth in the delightful but baneful habit of artificial excitation. This is most prejudicial to children, adolescents, adults, and, in a word, at every period of life. The habit is indulged to excess, and then enfeebles both mind and body. It may be indulged in at all times, both day and night, and produces much more debility than natural enjoyment at the adult age.

It often excites in young persons the greatest antipathy and disgust to natural enjoyment, until the adult age renders reason more mature and perfect. The bad effects of unnatural excitement have been already described. I might cite thousands of illustrations about which I have read or been consulted. This destructive habit is common in schools, colleges, and in all places in which a number of youths or unmarried persons are congregated. "It is the contagion of scholars." How necessary, then, is it for parents, and those who have the guardianship and instruction of youth, to preserve them from contamination, and to watch them closely! They ought never to leave them alone, or in company with older children, companions, tutors, or servants. What a responsibility belongs to instructors, who really possess the most powerful influence on the welfare of a large portion of the present and future generations! They ought never to allow two children of any age, but especially when reasonable, to sleep in the same bed, but prevent it without assigning any reason; or two scholars to remain too much together, or to be constantly in company with each other in lonely situations; and in fine, to observe most carefully the changes in the physiognomy, hereafter described, which result from the baneful, unmanly, and inhuman habit under consideration.

It is, however, at the age of puberty that most young persons contract this vicious practice, and abandon themselves to it with the greatest ardour. Every means should be taken to suppress this unnatural, sinful, and degrading vice. The best means of prevention are moral restraint, and physical exertion taken to fatigue, amusements in the open air, active employment, moderation in diet, temperance in drink, and a proper use of sedatives at bed-time. But of all means, religion is the most effectual in restraining and correcting this habit.

I have fully described the pathology and treatment of genital diseases in a distinct work, and cannot notice them farther on the present occasion*. It is lamentable to observe the gross immorality of children on the approach of puberty. In the present week, (Aug. 15, 1836,) four boys, each of twelve years of age, were tried at one of the Police Offices for theft, and each had his concubine. Such present themselves almost daily at our hospitals and dispensaries, in consequence of venereal infection; and we see girls on the town apparently no more than ten or twelve years of age. You have seen an example this day at the hospital. In farther proof of this statement, I shall cite an account lately published (1835) by the London Society for the Prevention of Juvenile Prostitution.

"The committee cannot avoid referring to the present dreadfully immoral state of the British Metropolis. No one can pass through the streets of London without being struck with the awfully depraved condition of a certain

* Lectures on Population, Marriage, and Divorce, &c.

class of the youth of both sexes at this period. Nor is it too much to say, that in London crime has arrived at a frightful magnitude; nay, it is asserted that nowhere does it exist to such an extent as in this highly favoured city. Schools for the instruction of youth in every species of theft and immorality are here established. Here we discover, upon investigation, that juvenile delinquents are promoted and encouraged by those who receive the greater share of the plunder, and who incite to further acts of depredation and robbery. It is the common practice with the inmates of these dens of iniquity, after the avocations of the day cease, to revel in intoxication and debauchery during the greater part of the night; and he who has proved himself the greatest adept in their unlawful pursuits, is elevated to the rank of monarch for the night, and adorned with all the mock honours of a king, as a reward for his superior attainments. Facilities for like transactions are multiplied in no ordinary degree by the establishment of illegal places of dramatic entertainment, and unlicenced dancing-rooms.

"A long catalogue of crimes peculiar to the metropolis might be enumerated: suffice it, after what has been stated, to direct the attention of the public to the abominable system of traffic carried on by the traders in Juvenile Prostitution. It has been proved that upwards of 400 individuals procure a livelihood by trepanning females from 11 to 15 years of age, for the purposes of prostitution. Every art is practised, every scheme is devised to effect this object; and when an innocent child appears in the streets without a protector, she is insidiously watched by one of these merciless wretches and decoyed, under some plausible pretext, to an abode of infamy and degradation. No sooner is the unsuspecting helpless one within their grasp than, by a preconcerted measure, she becomes a victim to their inhuman designs. She is stripped of the apparel with which parental care or friendly solicitude had clothed her, and then, decked with the gaudy trappings of her shame, she is compelled to walk the streets, and in her turn, while producing to her master or mistress the wages of her prostitution, becomes the ensnarer of the youth of the other sex. After this, it is useless to attempt to return to the paths of virtue and honour, for she is then watched with the greatest vigilance, and should she attempt to escape from the clutches of her seducers, she is threatened with instant punishment, and is often barbarously treated. Thus situate, she becomes reckless and careless of her future course. It rarely occurs that one so young escapes contamination; and it is a fact that numbers of these youthful victims imbibe disease within a week or two of their seduction. They are then sent to one of the hospitals, under a fictitious name, by their keepers, or unfeelingly turned into the streets to perish; and it is not an uncommon circumstance, that, within the short space of a few weeks the bloom of health, of beauty, and of innocence, gives place to the sallow hue of disease of despair, and of death.

"This fact will be appreciated when it is known that in three of the largest hospitals in London, within the last eight years, there have been not less than 2,700 cases of disease arising from this cause in children from 11 to 16 years of age.

"Often has the parent of a fondly-cherished daughter had to deplore the untimely fate of his child. His hopes have been blasted—the cup of parental joy dashed from his lips—the once manly frame has become a complete wreck—and his grey hairs have been pressed with sorrow to the grave.

"With regret it is stated that the instances of juvenile prostitution are exceedingly numerous, and most of them take place in the manner just depicted. Not less than 80,000 prostitutes exist in London, a great proportion of whom are of tender age. It is computed that 8,000 die every year, and yet the number, so far from being reduced, is rather on the increase—the

market, as it were, being constantly supplied by those who are ever on the alert to entrap the innocent and the unwary. Here, then, is an amount of human misery arising from one source. Nature is thus outraged, and the noblest powers of our species debased to the level of the brute. Incalculable is the suffering thus inflicted upon these unfortunate creatures. Incalculable is the mischief forced upon society by the example here produced.

"Distressing as this statement must be to every virtuous mind, the evil does not rest here. It is impossible to calculate what extent of suffering is communicated to the youthful profligate of the other sex, by the poison of disease thus thrown into the mass of the population. In addition, there is the immense injury sustained, in a moral point of view, by the example thus afforded to the rising generation. If the reports of the London Criminal Courts are carefully examined, it will be found that nearly two-thirds of those convicted of outraging the laws of their country are connected with the keepers of brothels, who are the encouragers and promoters of theft and dissipation.

"It is lamentable to observe, that scarcely a day passes without bringing to light, by means of the public papers, some new acts of seduction—of desertion; and how often has the humane mind bitterly reflected on the amount of life sacrificed either by disease or suicide. What revolting scenes, too, do we witness! To be deaf to the obscene language vociferated, or to be insensible to the dreadful practices adopted by the most abandoned of these creatures, is impossible. Will parents attempt to deny that their sons and daughters are not liable to the contaminating effect of the example thus openly placed before them?—or that a high responsibility attaches itself to them to endeavour to eradicate this alarming evil?"

To prevent such evils, premature marriages have been recommended by some, but we shall see that these are highly objectionable, and injurious to the well-being of offspring.

Premature Marriages.—The most deplorable consequences are produced by precocious marriages. "Precocious marriages," says Aristotle, "oppose a good generation; for in the entire animal kingdom the fruits of the first signal of reproductive instinct are constantly imperfect, and have not any well established form. It is also the same with the human species; and the proof is evident, for precocious marriages procure small and contemptible men." M. de Fontaine, chief surgeon to the late king of Poland, attributed to premature unions of the Polish Jews the extreme physical debility which characterised them and their progeny. Montesque affirmed, that fear of military service caused a great number of young men, almost of the age of puberty, to enter into matrimonial connexions; that these unions, it is true, were fertile, but that most diseases, and misery which they produced, diminished the population of France.

Precocious sexual intercourse greatly debilitates the moral and physical power of both sexes, and predisposes the female to abortion and disease.

Premature marriages have been advocated on the grounds of morals, for the prevention of libertinage; but I agree with Frank, Mahon, Marc, and others, if there be no other means than marriage to restrain youth until it becomes vigorous at manhood, we can only lament the issue of beardless fathers. Moral and religious impressions are more rational means; and seldom does the fear of debauchery lead to early marriages, which generally take place from motives of interest or ambition. Louis XI. cohabited before the age of fourteen with his queen, who was not twelve; and, in the opinion of M. Marc, his effeminate and ferocious character depended, in some degree, on the exhaustion of his nascent powers. This able writer observes, in addition to the preceding remark, "It is to be desired, for the prosperity of

states, that sovereigns should be the first to perceive the importance of the reasons which are opposed to precocious marriages. A man elevated by birth to rule the destinies of a nation, ought, to render it happy, and to be so himself, to reunite physical vigour and moral power in an eminent degree; and that his progeny should sustain and enjoy the same corporeal advantages as himself. A precocious union forms the greatest obstacle to the accomplishment of these views."—(Dict. des Sciences Med., Art. Copulation).

It is impossible for a physician to determine an exact age for marriage, so much depends upon constitution, climate, and other circumstances already noticed.

Premature marriages are exceedingly injurious to the health of both husband and wife, and the cause of weak and enfeebled offspring, which seldom arrive at maturity. It is well known to agriculturists, that when cattle breed too early, their young is not worth rearing. The laws of all civilized countries are against early marriages. Their bad effects are thus graphically described by Mr. Roberton, of Manchester. "In large towns, and in crowded manufacturing districts generally, marriage, and the vicious union of the sexes, at a premature age, are extremely common. When to this we add unwholesome scanty food, confinement to labour from an early age, and unhealthy employments, we cannot hesitate to conclude, that the progeny of such parents will be of more delicate organization than that of grown people, whose physical powers have been fully and naturally developed."—(Observ. on the Mortality and Physical Management of Children, 1827.)

In a work by M. Dupin, entitled "Productive and Commercial Powers of France," it is stated, that according to a return to the Chambers, in 1826, presented by the Minister of War—that of 1,033,422 youths, there were 380,213 rejected, because they were under five feet one inch and three fourths (English) in stature. The distinguished author attributes this diminution in size to the wars of the revolution having destroyed the virile part of the inhabitants, the consequent unions between old men and young women, the premature marriages of young men to escape serving in the army, the inferior food of the working classes, the encouragement to licentiousness afforded by the Foundling Hospital, and various other causes.

It was held, by some writers, that the age of puberty was intended for marriage; that animals copulate at this age; and, that, therefore, nature points out this time for propagation.

In reply it is urged, with more reason, that neither the mind nor body of man has acquired its perfectibility for many years after puberty; and that the sexes at this age could not perform the duties of parents efficiently. Common sense and observation are opposed to the opinion, that a giddy youth at the age of puberty, with down on his chin, could communicate a perfect vitality to offspring, or discharge the paternal duties required for the physical education of infants.

The same objection may be urged against a girl at puberty becoming a mother; and, in addition, that the disorders of pregnancy, the fatigues of labour and of suckling, would be much more than her constitution could sustain. Conjugal unions at this age, before the moral and physical states are developed, would be influenced by impetuous and ungovernable passion, and the facilities of prolonging it would lead to satiety, disgust, debility, and sterility.

Early marriages are admitted, by moralists and physiologists, to be serious evils. The author of "Marriage" makes the following very judicious remarks:—

"Very early marriage is, in our opinion, a serious evil. Acting under the impulse of headstrong passions, or caprice, or dissatisfaction, young persons, too often, prematurely rush, thoughtlessly and blindly, into engagements which, in after life, become matter of deep and painful regret. The fairy visions of love's paradise now vanish; and the sober realities of life its cares, its difficulties, and its positive evils soon lead to discontent, heartless repinings, and, worse than all, to a growing mutual indifference. Would that such cases were either rare, or only speculative; but the fact is otherwise. We every day see boys and girls at the head of families, who want discretion to direct themselves. No wonder that families are ill governed, children ill managed, and their affairs ill directed, when the helm is entrusted to unskilful and inexperienced hands. Is it possible, we would ask, that wives of sixteen, or eighteen years of age, should possess that discretion, prudence, and wisdom so essential to enable them to govern households, rear children, and form their tempers and their principles? It would be well if young wives were humble and modest enough to place themselves under the guidance and direction of some prudent, well informed matron, as their friend and mentor. But of this enough*. A settlement in life offers an immediate exaltation in public opinion, independent of moral worth, or virtuous conduct. It is a rank obtained without exertion, and preserved, too often, independent of virtue."—(Marriage: the Source, Stability, and Perfection of Social Happiness and Duty. By the Rev. H. C. O'Donnoghue, A. M. of St. John's College, Cambridge. London: 1828.)

It is not true that animals copulate precociously; those in a state of nature seldom do, and the few that are domesticated are the exceptions.

The ancient legislators and philosophers opposed early marriages. The laws of Lycurgus enacted that men should not marry before the age of thirty-seven, and women not before the age of seventeen years. Xenophon and Plutarch explain the spirit of these laws, on the grounds that they were intended to secure the most vigorous offspring, and powerful population. Aristotle held that a husband ought to be twenty years older than a wife: he ought to have said ten, as this disparity is now properly considered too great.

Plato assigned the period for propagation to man, from the age of thirty to fifty-five, and to woman, from twenty to forty years; and he held that all infants procreated under or over these periods ought to be consigned to infamy. Every day's observation proves that he was in error, as vigorous infants are born much later than his prescribed periods.

The Jews regarded girls to be marriageable at the age of twelve years; but their laws were suited to warm climates, and would be inapplicable to temperate or northern regions, in which puberty does not occur at this age.

"The law of Germany renders it illegal for any young man to marry before he is twenty-five, or any young woman before she is eighteen; and a young

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* "From these observations we are unwilling that it should be supposed that we advocate marriages deferred till fortunes shall have been acquired, or rank attained. On the contrary, we believe that such marriages seldom realize the anticipations which are formed of them. If an age must be stated below which marriages ought not to be contracted, we would fix it at twenty-five for men, and twenty-one for the female sex. This would find each party in the full vigour of all their energies, with some moderate acquaintance with the world; and with some experience and discretion in the management and guidance of family affairs. When marriage is unreasonably deferred, the heart, losing the elasticity of youthful ardour and hope, becomes blunted by the vexations and disappointments of life, and is seldom the subject of disinterested love, and genuine affection. The tastes, habits, and feelings, then become settled and fixed, are little disposed to accommodate themselves to the peculiarities of others."

man, at whatever age he wishes to marry, must show the police and the priest of the commune where he resides, that he is able and has the prospect to provide for a wife and family."—(Magazine of Natural History).

There must be some mistake in this statement, for I find, on inquiry from natives of Germany, that persons under the adult age may contract marriages, provided the husband is able to support a wife and family. The magistrate will not certify for any individual, of whatever rank, unless on these conditions.

Late Marriages.—Late marriages are also highly detrimental to the welfare of society, and especially those unions between persons of a very advanced age. Fecundity cannot follow after the woman has ceased to menstruate; but there is no age at which we can declare man to be absolutely sterile. These facts do not, however, destroy the general rule as to the proper age for marriage, as man or woman at a very advanced age cannot fulfil the end of marriage, the procreation and physical education of the species. When two aged persons, deprived of the faculties necessary for generation, marry for the purpose of affording mutual cares in old age, and sweetening the last years of life, there is no inconvenience to society, except that of favouring celibacy, and deferring conjugal union to a period when it is useless to population. But when the woman is not beyond the term of fecundity, the consequences of late marriages are often very serious. She may be barren, which is frequently the case, or she may become pregnant at a period of life when the rigidity of her fibres may not readily yield to the efforts of parturition. Such is often the condition of women between the age of thirty-five and forty: they suffer severely during a first labour: their lives are endangered, and often destroyed. If they become mothers, their offspring are extremely debilitated, or when the parent is still more advanced in age, her infant is often destroyed at the portal of life, or, if born, it inherits the languor of its parents, it becomes an orphan before it is reared, it remains a charge to the public, if there is not a property left to render it independent. When marriages are contracted between persons of a disproportionate age, they are usually followed by great immorality. The power of fecundity ceases with one party, while it is continued in the other. These unions, therefore, give less infants at one time than at another. It is a matter of observation, that young women bear no children when united to old men, but become mothers on second marriages. Another evil consequence of this class of late and ill-sorted marriages is the physical debility of infants; for the youth of the mother is counterbalanced by the languor of the father.

Conjugal union between a young man and an aged woman causes bad effects upon the social order: it is a kind of sanction for concubinage. Man can engender to an old age, but woman is sterile after the cessation of the menstrual function. These marriages generally take place on account of pecuniary, or other unworthy considerations: they lead the husband to debauchery, and the wife to all the excesses of jealousy. They are therefore injurious to society, and to the increase of population.

The laws of ancient nations on late marriages merit notice. In Sparta, when a woman brought a fortune to an aged and impotent man, he was compelled to permit her to choose an adjunct to his family. In Italy certain ladies stipulate for their cecisbeos and cavaliers servantes, and in Spain for individuals with similar privileges.

According to the Roman law in the reign of Augustus, men who were more advanced in life than 60 years, and women than 50, were not allowed to form matrimonial unions. Numerous other examples might be given of laws against late marriages. Conjugal unions should be entered into with the natural liberty of choice. Young persons form attachments which neither

parental authority nor any other consideration can prevent or destroy. But as a general rule, the consent of parents ought to be obtained; and it never should be withheld when there is mutual love and affection, and an adequate support for the parties and their offspring. Parents often refuse consent on the score of interest, ambition, rank, title family connexion, and lucre, and compel their offspring to marry against their own inclinations. The most unequal unions take place; the wife might be the daughter of the husband, or the husband the son of the wife; and the results are domestic misery, unhappiness, jealousy, infamy, premature, or perhaps criminal death.

It has been long remarked, that old men beget infirm, delicate infants, as well as those affected with syphilis, scrofula, gout, phthisis, &c. These, and many other diseases, are transmitted to the offspring. Children resemble their parents in features, limbs, and dispositions, so that the moral and physical condition of parents are also transmitted to their offspring. This position has been amply proved in a former lecture.

"As parents would sin grievously who should not leave marriage to their children's free choice and deliberation, as it is their personal engagement, so children sin mortally against the respect and obedience which they owe to parents, if they marry against their consent, or without their advice, unless the parents' opposition be notoriously unjust."

There never should be a great difference in the ages of those who are about to form conjugal unions. The authority of parents, guardians, and the conductors of schools, should be exerted over those under their care, more especially when these have little acquaintance with the world. Inconsiderate and rash unions are often effected in scholastic establishments.

They should discourage visits, private interviews, and all familiarities, unless an honourable intention of marriage is declared, for otherwise such a line of conduct is contrary to the rules of decency, good manners, and religion, and gives scandal to others.

A continued familiarity between young persons of different sexes necessarily produces attachment and love.

The London Medical
AND
Surgical Journal.
Saturday, August 27th, 1836.

MEDICAL WITNESSES' BILL.

We inserted, in our last journal, the copy of "An act to provide for the attendance and remuneration of Medical Witnesses at Coroners' Inquests." A more important legislative enactment, concerning the profession, has not been past for many years—and it is to Mr. Wakley that medical men are indebted for this highly useful measure. There are several ways, we conceive, in which this act will benefit the profession, as it will unquestionably the public in general, by furthering the ends of justice. There has not been a greater burden on the time of medical men, than the obligation of giving evidence at inquests, at which they were summoned to attend, perhaps to undergo a very long and tedious examination, make *post mortem* examinations, and perform other duties, without fee or reward—and this too, often at great personal inconvenience and pecuniary loss. In many instances, as might be justly supposed—the consequence of this arbitrary tax on the time of the medical witness—he has been anxious to dispense with his attendance, and has frequently sent his apprentice, or some other individual, certainly not competent to give evidence on an important question, affecting, perhaps, the lives and interests of several persons. Hence too, the disgraceful scenes that our Coro-

ners' Courts have sometimes exhibited, in the unsatisfactory and insufficient evidence of the unqualified medical witness. But under the act in question, the medical man will be employed as a public servant, to assist the inquiry into truth, and be paid accordingly.

Jurisprudence is a branch of the science of medicine, which has been much and undeservedly neglected by practitioners; indeed, there has been no portion of their education that students have so little attended to, as the lectures on medical jurisprudence. The act which has been past, will alter the state of these matters, and the study of this branch of medicine will assert its proper and just title to importance.

The clause in the act regarding the non-payment of medical officers in public institutions, for evidence given at inquests holden therein, is, we consider, a most proper and wise proceeding, as regards the fees, which are to be paid from the parish funds, as well as on other grounds. The members of the profession have much to thank the Honourable Member for Finsbury for, and we have no doubt they will fully appreciate his exertions in Parliament on their behalf.

MEDICAL REFORM BILL.

Mr. Warburton stated in the House of Commons, the other day, that it was his intention to bring forward an effective Bill on Medical Reform, early in the next Session of Parliament. We trust there will be no delay in forwarding this important measure.

REGULATIONS OF THE APOTHECARIES' COMPANY, RESPECTING LECTURES ON MIDWIFERY.

We have received the following letter, and, as it concerns Students as well as Lecturers, we publish it.

"*Apothecaries' Hall, Aug.* 15, 1836.

"Sir—I am instructed by the Court of Examiners to acquaint you, that in consequence of a Conference held at the Hall with a Deputation from the Teachers of Midwifery in London, on the 8th instant, the Court have agreed to revise the Regulations for the study of Midwifery, published by them in April, 1835, and, in lieu thereof, they have resolved—

"That Two Courses of Lectures on Midwifery, consisting of Sixty Lectures each (including examinations), may be attended at any time subsequent to the termination of the first Summer Session; and that Practical Midwifery may be attended at any period subsequent to the termination of the second Winter Session.

"The Court of Examiners beg, at the same time, to state, that the course of study for the Midwifery classes instituted last year, was not adopted without mature deliberation on their part, and originated in a painful conviction of the very inefficient attainments of the students generally on every point connected with Midwifery, and the Diseases of Women and Children; and although they are still of opinion that the course of study they had arranged, would, when it came into operation, have been productive of the greatest good, nevertheless, in compliance with the unanimous wishes of the teachers of this department of Medical Science, they make this sacrifice of their own views, in the hope that the result may be found productive of those advantages anticipated by the Lecturers.

"The Court have been given to understand that the majority of students entertain a belief that no examination is instituted as to their attainments in this branch of study; they therefore trust that each lecturer will impress upon his class the fallacy of such an opinion, assuring their pupils, that in addition to the usual inquiries into the Anatomy, Physiology, and Pathology of the Uterine System, a strict investigation is made respecting their knowledge of every condition connected with the pregnant and puerperal states; and that the only point to which the examination does not extend, is that of delivery by instruments. I am, Sir, your most obedient servant,

"Robert B. Upton, *Secretary.*"

Hospital Reports.

NORTH LONDON HOSPITAL.

Anomalous Tumour in the Abdomen.

Margaret Leary, an Irish woman, æt. 36, pale sallow complexion and spare habit; admitted July 26th; married; has had three children and one abortion. The abortion took place three years ago, and was produced by a fall against the stairs, which very much injured the left iliac region. Before the abortion, she could feel a small tumour in the left iliac region, but it did not increase

until after the abortion. After that time it increased rapidly for about two years, when it had acquired its present size. After the tumour had ceased to increase, she felt pain over the whole abdomen, which was increased on pressure, and was accompanied with feverish symptoms. The abdomen began to swell and has continued to increase until her admission. The catemenia have always been regular since her miscarriage. Her health has been impaired for some time. About three weeks ago she was seized with severe pain about the stomach and groins, followed by great prostration of strength and cold sweats; there was also pain in the limbs, back, and various other places, which continued until the next day, when the catemenia made its appearance; during which time she supposes she caught cold, for the catamenia suddenly stopped. It had not appeared for two months previous. Since that attack she has complained of pain in the left groin, which she describes as a severe cutting pain, extending to the back, loins, and limbs; the abdomen gradually increasing in size and hardness.

On her admission the tumour was found situated in the left iliac and lumbar regions, extending across the abdomen into the right iliac region. It is very large, and feels of a bony nature and very moveable. The abdomen very tense, containing a quantity of serum, and slightly painful on pressure. Pain rather acute in the right hypochondriac region. Bowels regular, urine high coloured, thick, and of the usual quantity; generally feels cold.

She was ordered Hirudines viij, to be applied to the part, and aperient, and anodyne medicine. The leeches relieved the pain.

August 1.—Mr. Liston performed paracentesis abdominis, and drew off 13 pints of albuminous fluid.

℞. Hst. Anodyni h. s. s. Ol. Ricini, ℥ ss. cras mane.

2. Feels less pain over the abdomen, and not so heavy; more pain in the region of the tumour; thirsty and very faint; has had a good night's rest. Catamenia have appeared. Pulse 90, compressible. Bowels slightly open. Stools of a dark colour.

3. Better; no pain over the abdomen, except that part which was tapped. Pulse 82 and soft; less thirst; speech better.

℞. Hst. Anodyne h. s. s. omn. nocte. ℞. Hst. senna stat. sumend.

4. Has had a bad night; fancies the draught was the cause of it; in other respects the same. From this time she continued gradually improving in her health, until the 10th. The serum continued to be secreted, but in consequence of its oozing from the puncture, it did not distend the abdomen.

10. ℞. Iodinæ ♈i. Potassa Hydriod. ♈iij. Aquæ ℥ iss. *m.* ft. Hst. ter die sumend. ℞. Plumb Iodatis ʒ ij. Adeps, ℥ ij. *m.* ft. Ung. ʒ i. App. Abdominis bis die.

She continued the use of this medicine until the 15th of August, when she was obliged to go out to take care of her child.

Cephalalgia.

Matilda Jenkins, æt. 19; admitted July 12th; artificial flower maker; plethoric habit. Has been subject from a child to inflammatory attacks of the chest, which have always been cured by bleeding, cupping, and blistering. She states, she is generally subject to an attack every spring and autumn. In October last, she had an attack; pain in the middle of the sternum, increased during inspiration. Breathing very short and difficult; cough slight, and general fever. Bowels usually costive. For these symptoms she was bled to syncope. This was produced by a very small abstraction of blood. After recovering, her head became affected with pain, particularly at the back part, shooting to the forehead. The pain continued to increase, accompanied with delirium for three days, and was ultimately subdued by repeated bleedings, cuppings, and the application of blisters, but was never cured, the pain in the head continuing more or less until the present time. Her present symptoms are, a deep seated heavy pain at the back part of her head, darting across to the forehead, throbbing of the temporal arteries, and giddiness, worse sitting up than laying down, and worse during the day than night. A fixed pain about the middle of the sternum, increased during respiration. The breathing difficult, 44 in a minute. A general feverish state of the system. Bowels generally very costive, Catamenia regular. She also complains of pain at the lower part of the spinal column, which appears to extend round to the chest, and makes her feel sick.

July 12. P. Calomel gr. viij. Ext. Colocynth C. gr. x. Pil. ij. st. sumend. ℞. Haust. niger cras mane sumend. M. D.

13. Bowels freely opened. Pain in the head the same. Pain in the chest relieved; breathing less difficult. Fever better. Shave the head. C. C. ad. ℥ xiv. occipito app. ℞. Soda Bicarb. ʒ ss. Soda Sulph. ʒ i. Aquæ, ℥ iss. *m.* Hst. sumend, cu Ferri Sulph. gr. iv. Aquæ ℥ ss. ft. ter die.

15. ℞. Aloes gr. iv. Pil. Hydrarg. gr. ii. Ext. Hyos. gr. v. f. Pil. ij. h. s. s.

17. Chest better, fever abated, head not relieved from this time until the 22nd. The head appeared better one day and worse the next.

22. ℞. Sulph. Quinin. gr. iij. Infus. cinchon. ℥ iss. *m.* Hst. ter die sumend. From this date until the 2nd. August, the paroxysms of the head came on every third day. In every other respect, her health was improving. She was persuaded to go out August 1st, for a short time. She returned

very much heated, and on the 2nd her head was much worse. Throbbing very great over the forehead, and accompanied with considerable degree of fever. Bowels open.

Aug. 3. Pain in the head continues to get worse, and all her former symptoms of the chest returned. Pulse 120. Thirst great. Skin hot and dry.

C. C. ad ℥ xij. ℈pone apires app. ℞. Cal. gr. ij. Antim. Tart. ¼ gr. f. pil. omn. 4tis. hor. sumend.

4. Pain in the head a little relieved. The pain in the chest and the breathing no better. Less fever. Pulse 104. The second dose of the pills made her sick.

5. Better in every respect. Her mouth feels slightly sore.

6. The pain in the head much better; but the tenderness over the upper part of the spine is increased, and appears to extend to the chest. Respiration worse.

9. Better.

10. Not so well. All her symptoms are increased in severity. Catamenia have returned.

C. C. ad ℥ x. Pergat.

12. Much better. Has continued to improve until the present time, when she is almost well,

Dr. Thomson said, in lecture,—"This, Gentlemen, is a case which is termed cephalalgia congestiva. The temperament of our patient, namely, the sanguineous, is one peculiarly liable to such a species of headach: it often follows hæmorrhagies, and in this case it seems to have originated in over bleeding. The same debilitated state of circulation causes it to be not uncommon in chlorosis, and general asthenic conditions of the system. The pain is most common in the forehead, but occasionally, also, it attacks the occiput.

"In the treatment of such cases, much depends on circumstances,—if there be any thing like plethora, local bleeding, and purging,—the bowels, as in our case, being generally costive.

"If the disease becomes intermittent, bark, or sulphate of quinine: and this is requisite, to prevent the recurrence of the disease after it is removed by other means."

Compound Dislocation of the Clavicle (backwards.

Joseph Hawkins, æt. 31, Excavator, a stout healthy-looking person, was admitted into George's Ward, Sept. 23, 1835. He has been accustomed to drink three or four pots of porter daily, and not unfrequently to get drunk, but he has not used spirits. About three hours since, whilst excavating for the foundation of the Southampton rail-road, about twelve feet in height of earth fell, and drove the sharp end of a pick-axe against his chest. On his admission, a wound existed opposite the sternal extremity of the second rib on the right side; the cellular tissue below the right clavicle and on the upper part of the sternum was emphysematous. The clavicle dislocated backwards at its sternal extremity. When the finger was introduced into the wound, the great pectoral muscle was found to be torn entirely from its clavicular attachment, and the finger could be passed as far outwards as the coracoid process of the scapula, and inwards it followed the clavicle to the trachea, on the right and fore-part of which it rested, sunk behind the upper bone of the sternum, so that it slightly affected respiration and deglutition: the interarticular cartilage seemed to remain in its proper place, except a small portion which had been torn off with the bone; the extreme inner end of the clavicle could not however be distinctly felt. No wound of the intercostal muscles, as far as could be ascertained. The pick-axe had probably first passed upwards and outwards, then turned inwards, torn off the pectoralis from its origin, and, having dislocated the clavicle, passed inwards towards the sternum, probably wounding the trachea, and thus causing the emphysema.

He complained of a little pain opposite the middle of the second bone of the sternum, but no fracture could be ascertained, and he had no other pain in the chest. He respired easily, although he complained of difficulty of breathing, accompanied with great desire to cough, and a sensation of pressure on the wind-pipe, which was much increased on elevating the chin and throwing the head back. The shoulders were brought back with straps attached to a back board, and the bone readily resumed its place; the elbow was brought forward and bound to the side. He was placed on a dropsy bed with the shoulders raised.

Evening.—Difficulty of breathing relieved; but he complains of the pain across his chest, more particularly on taking a deep inspiration. There is no increase of emphysema. Pulse 85 and fuller; tongue dryish and white. ℞ Mist. Senn. Com. ℥ j. ss. stat.

Sept. 24.—His bowels have been relieved ten or twelve times by the medicine, and he has had a bad night, the pain in his chest preventing any attempt to sleep. Has rather more difficulty of breathing, which is relieved by lying on his left side; but quite easy at the immediate seat of injury, and the bone keeps well in its place Pulse 80 and soft.

Sept. 25.—Has passed a good night and is much better. Pulse 84 and soft; tongue moist and rather furred; bowels relieved once since last report. He has a little pain across the chest, and slight tenderness over the epigastrium, but no pain in taking a deep inspiration, although he has a slight cough. Complains of great stiffness at the back of the neck. Mist. Senn. Comp. was

given in the evening, which produced three or four stools.

Sept. 26.—Going on well; skin cool; tongue clean; pulse tranquil. He complains of slight pain in the right side of the chest, which waked him and set him coughing.—℞. Pulv. Ipec. C. gr. v. o. n. Diæt. Comm.

Sept. 28.—The bandages having cut his arm-pits, they were re-adjusted, some strips of soap plaster having been previously applied. In other respects he is doing well.

Oct. 1.—Going on well and sitting up in his bed; says he feels quite well, excepting pain at the pit of his stomach, and in the belly, which he refers, and probably truly, to the bruises he has received.

Oct. 3.—Going on well: cough much better; still complains of uneasiness about the right side of his chest; fancies himself not quite so well as he should be, in consequence of having made too free with himself yesterday, and has not been able to eat his dinner to-day.

Oct. 15.—Has continued going on well, and got up to-day. Oct. 24. Presented.—*St. Thomas's Hosp. Rep.*

Physiology of the Expectoration.

The mucous membrane lining the air-passages, in common with all parts of this tissue in the outlets of the body, secretes a colorous, inodorous, and transparent fluid, somewhat viscid or glutinous, like a thin solution of starch or gum-arabic. It exists in health in sufficient qnantity to moisten the inner surface of the air-tube, and other passages, and to prevent adhesions between their surfaces. This secretion in the pulmonary mucous membrane is the basis of most of the varieties of expectorated matter, but our present knowledge of animal chemistry does not enable us to discover the precise composition of these varieties. All we know is, that albumen in different forms and proportions is present; for whether the expectoration be mucus, serum, pus, tuberculous matter, or coagulable lymph, the chemist can discover but scarcely discernible varieties of the same principle. The natural secretion does not differ much from the serum of the blood, and owes its viscidity, according to Pearson, Bostock, and Berzelius, to an animal substance, which they consider an imperfectly coagulated albumen. The characters furnished by expectorated matter, present signs of the greatest value in the diagnosis, prognosis, and treatment of diseases of the chest, and are well worthy of careful study.

The function of respiration is so essential to life, that it cannot be suspended but for a few minutes before death ensues. When it is obstructed by accumulations or effusions life is greatly endangered. The structure of the bronchial tree or respiratory apparatus contributes greatly to the removal of any superfluous matter in it which might cause obstruction; for, the sum of the area of its branches being considerably greater than that of its trunk or trachea, the air finds an easy entrance into the air cells, and on its more rapid return in expiration, carries with it the superfluous matter. Thus, ordinary respiration tends to prevent, in spite of gravitation, any accumulations in the air tubes, but the excretion is more completely effected by coughing and special efforts of expectoration. These consist of deep inspiration succeeded by a quickt and forcible expiration, and accompanied with a constriction of the larynx and trachea, the effect of which is to loosen any superfluous secretion, and to bring it into situations from which the air, when forcibly expired, expels it through the glottis. Expectoration cannot take place without a previous full inspiration, by which the air is conveyed beyond the accumulating matter; and hence, when this is prevented, either by weakness of the respiratory powers or by the impermeability of the bronchial tubes, the excretion or expectoration is suppressed. The first of these causes of obstructed respiration is exemplified in adynamic or low fevers, which may thus prove fatal; the second occurs in pneumonia in the stage of hepatization, and if extensive, must lead to a fatal obstruction of the respiratory function. They probably occur together, towards the fatal termination of bronchitis, phthisis, and other severe diseases of the lungs. (On the Pathology and Diagnosis of Diseases of the Chest and Heart, by C. J. B. Williams, M.D. 1835). There is a different proportion of saline matter in pulmonary, mucous, and different kinds of expectoration, which gives rise to a salt taste in some cases. This criterion does not distinguish pus from mucus. Dr. Williams thinks an excess of saline matter is a sign of inflammatory action in the mucous membrane. In order to examine expectorated matter correctly, it ought to be collected in vessels of white ware or glass, when its colour, consistence, and quantity can be minutely ascertained.

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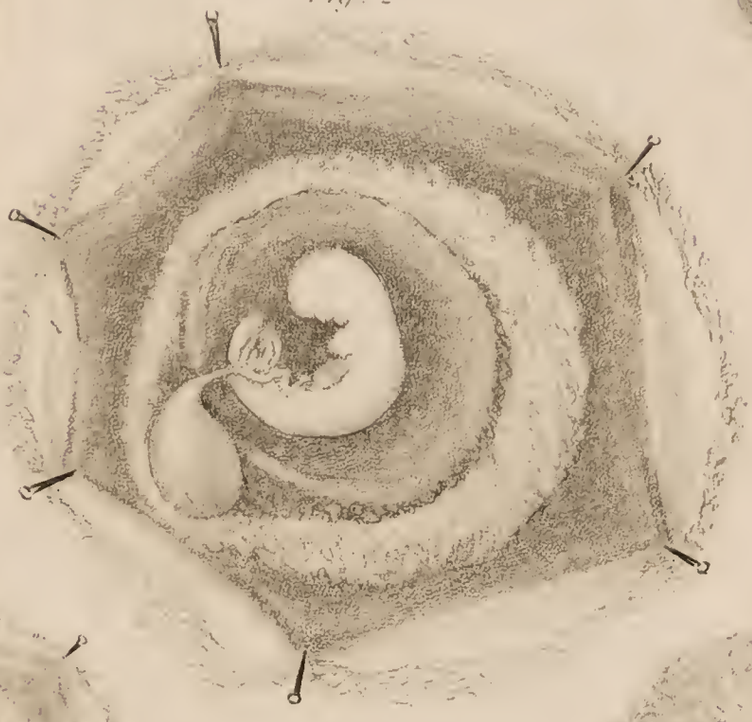

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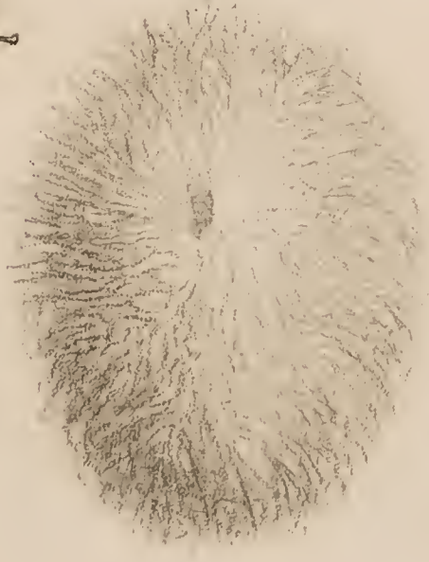

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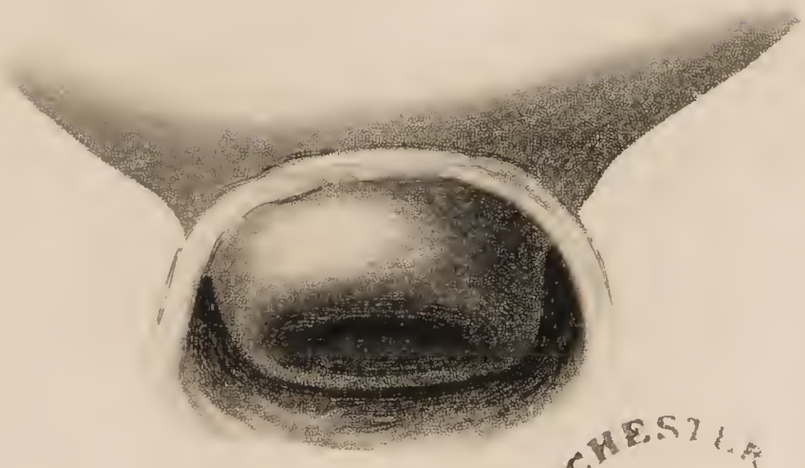

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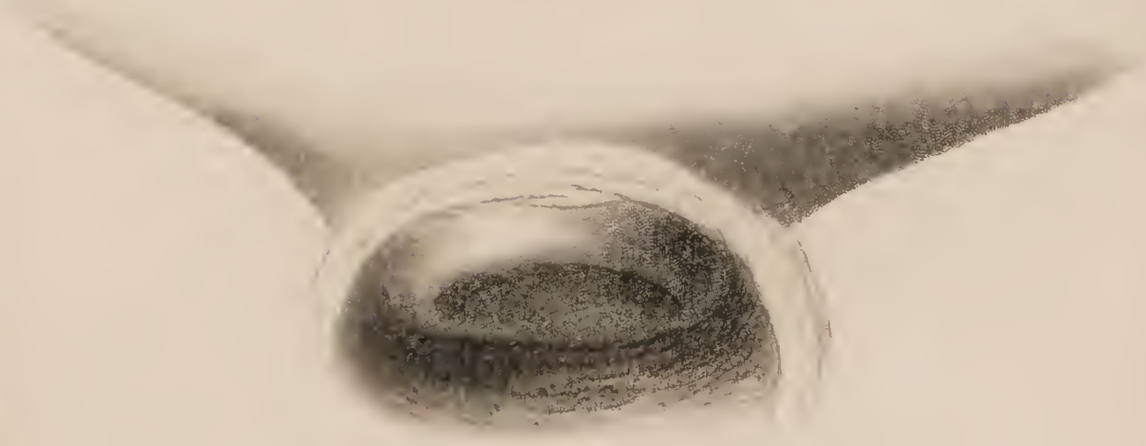

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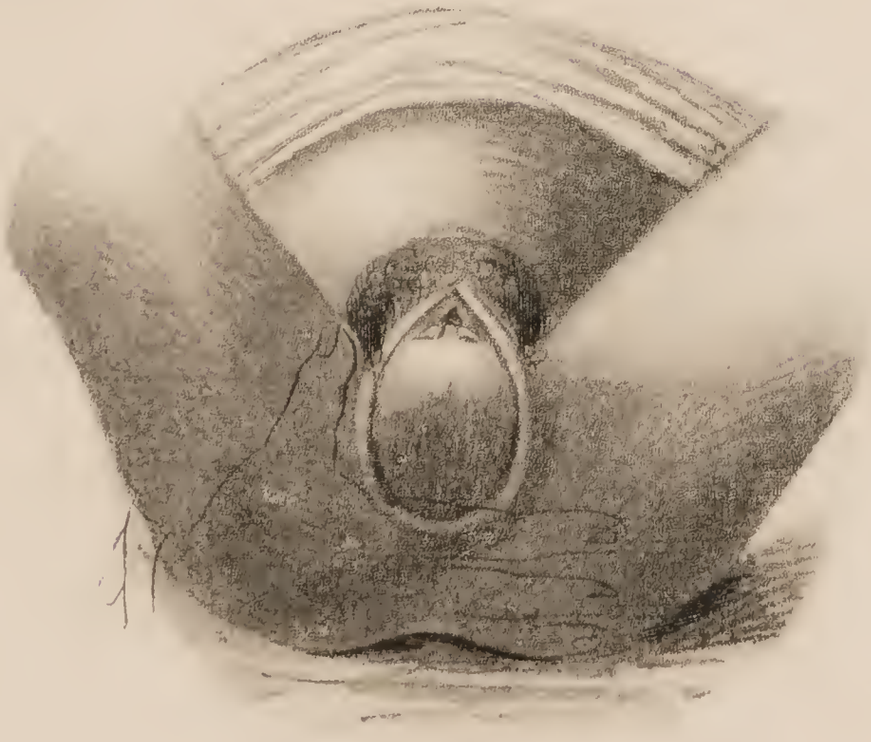

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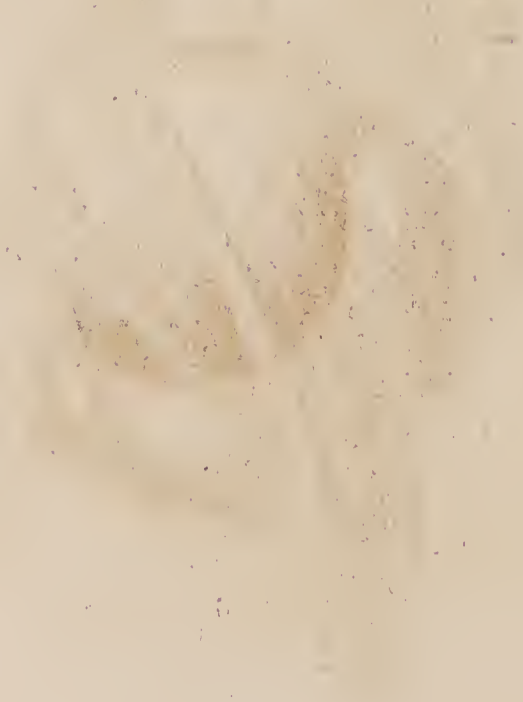

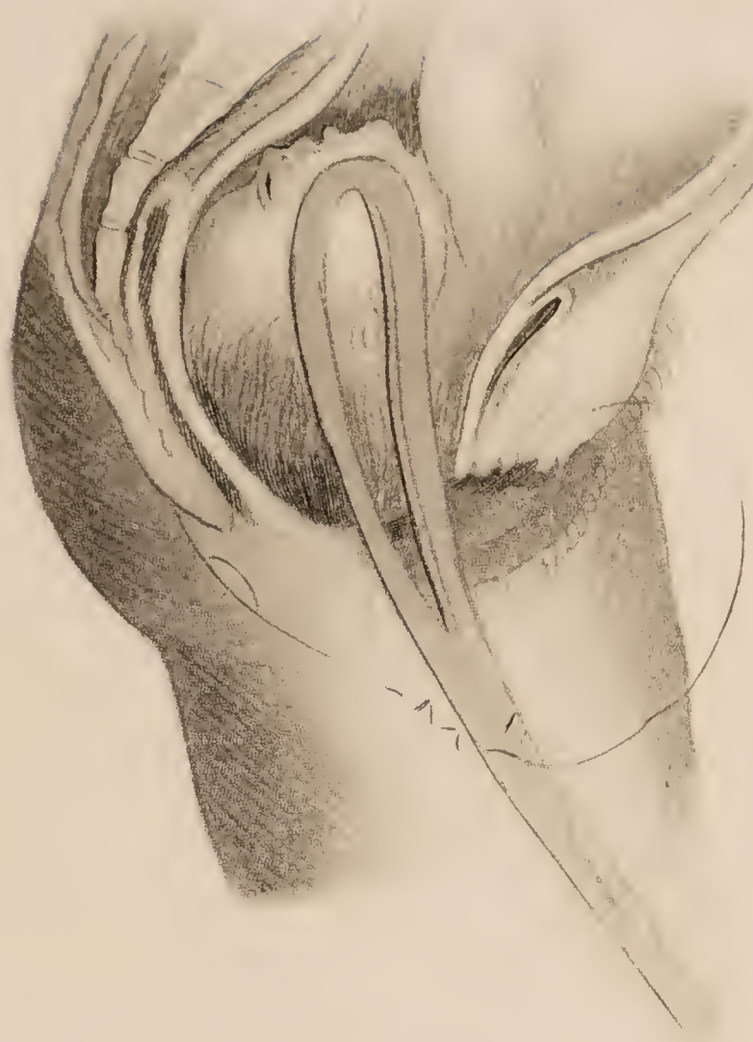

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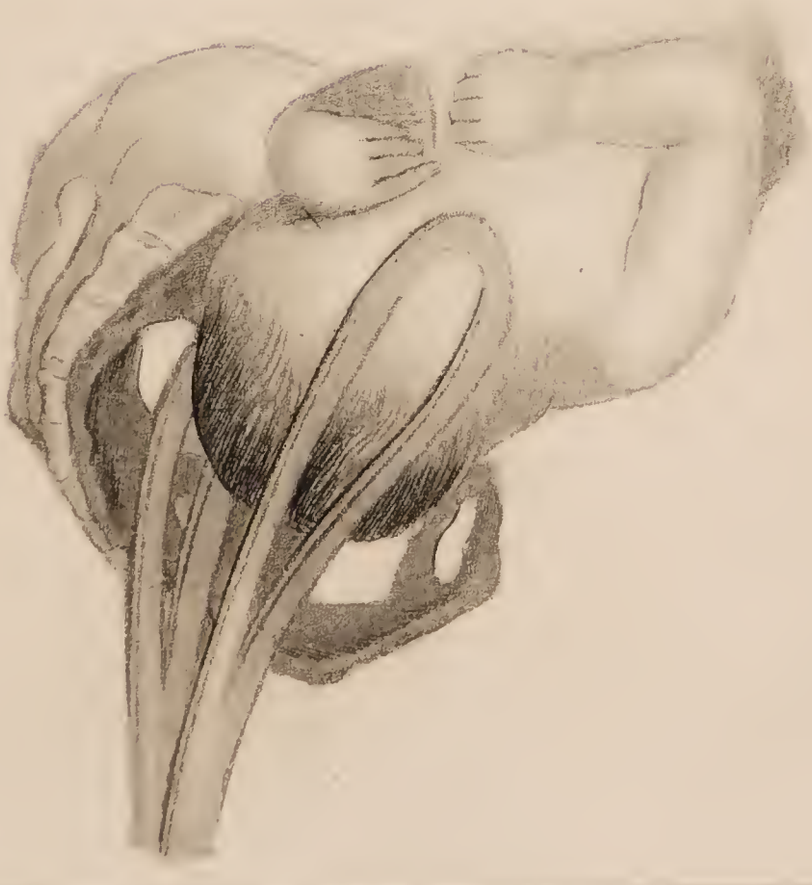

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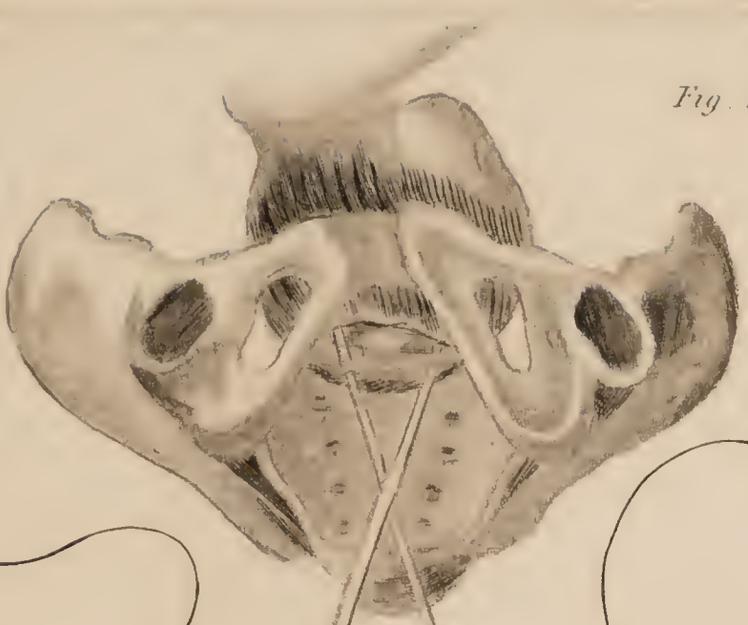

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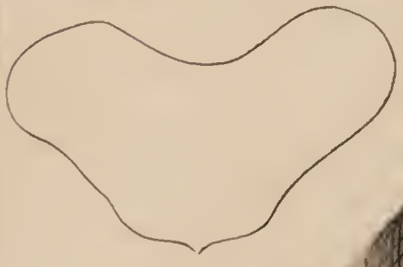

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